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Presidential Address

ON

THE BELFAST MEDICAL SCHOOL: A SURVEY OF THE STATE OF MEDICAL EDUCATION: NECESSARY REFORMS AND THE QUEEN'S UNIVERSITY OF BELFAST.

Delivered at the Seventy-seventh Annual Meeting of the British Medical Association

BY SIR WILLIAM WHITLA, M.D. R.U.I., LL.D. GLASG.,

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS, QUEEN'S COLLEGE, BELFAST.

YOUR EXCELLENCIES, LADIES, AND GENTLEMEN,—I discharge my first duty, and that which lies nearest to my heart, when I thank the members of the British Medical Association for the honour which they have conferred upon me by electing me to the presidential chair of their great society, numbering over 20,000 members, and containing in its ranks all that is best in the medicine of to-day, not only in the British Isles but in our great colonies and dependencies beyond the seas.

It is my pleasing duty to offer, upon behalf both of the members of the medical profession residing in and around Belfast and in the Province of Ulster, a hearty Irish welcome to our visitors, and this greeting is most cordially endorsed by our citizens and chief magistrate, who have honoured us by their presence to-night at this our seventy-seventh annual meeting.

Our worthy and public-spirited Lord Mayor and city council have given practical proof of the sincerity of their welcome by generously placing at our disposal their Exhibition and Ulster halls and their Botanical Gardens, as our esteemed Vice-Chancellor and his professors have thrown open to us for the week the entire range of class-rooms and buildings in the University.

MR. SIMEON SNELL.

My next duty is a sad one, as I refer to the irreparable loss sustained by the Association in the death of Professor Simeon Snell of Sheffield, who departed this life on April 17th last, during his year of office as President. Little did any of us, except, perhaps, his immediate circle of friends, suspect, when admiring his genial and manly presence at the highly successful Sheffield meeting a brief year ago, that never again were we to be privileged to sit under the spell of his magnetic personality. The exhaustive sketch of his strenuous life which appeared in our Journal soon after his death leaves me nothing to say about the high position which he had attained in his own realm of ophthalmology; nevertheless it is meet for us, in our bereaved condition, to mourn for him, and "to pay to his sweet memory the meed of a melodious tear." His whole life was a long series of brave and strenuous efforts to make his profession better than he found it, to improve the condition of his fellows, and to exalt the position of the city in which his lot was cast. The cause of his death, which occurred at the comparatively early age of 56 years, was arterio-sclerosis, and, as remarked by his friend, Sir Anderson Critchett, "had he been less prodigal of his boundless energy we might perhaps have been spared his untimely loss, but his faculties were ever at concert pitch, and he seemed to realise to the full Elizabeth Barrett Browning's terse and forcible injunction, 'Get work; be sure 'tis better than that you work to get.'" This continuous draft upon his capacity for work led to the inevitable result—

> "Comes the blind Fury with th' abhorred shears,
> And slits the thin-spun life. 'But not the praise.'"

But not the praise—since he faded from our sight, wearing the laurel crown of our great Association.

THE GROWTH OF BELFAST.

I shall not pause to dwell, as is usual on such occasions, upon the ancient historical associations of the city which the members of our organisation honour by their visit. Our local historian, Benn, commenced his "History of Belfast," written in 1877, with the short sentence, "Belfast as a town has no ancient history." Our position offers a marked contrast in this respect to the cities in which the annual meetings of the Association are frequently held in England where the history of the meeting place is often in miniature the history of England. This fact—as useless to deplore as it would be vainglorious for us to exult in—nevertheless has not been without its stimulating effect upon individual and collective exertion, teaching the sturdy citizen of Belfast that "He lives to build not boast a gen'rous race." It will be obvious to you how thoroughly he has learned the lesson if you survey our busy wharves with their evidences of a flourishing world-wide commerce, as you see the stately leviathans which glide down to the sea from our shipbuilding yards, and as you catch a glimpse of the myriads of human spiders who spin and weave from morn till night in our great flax mills and linen factories.

I shall not weary you with statistics which demonstrate the almost unparalleled if not absolutely unique progress made by Belfast in recent years; it is sufficient to remind you that since the Association honoured the city by its first visit, just a quarter of a century ago, the population has almost doubled and is still making rapid strides, which in a few more years promise to reach the grand total of half a million souls. At the same time it is a source of honest pride to the thoughtful Belfast man that whilst his native city has been directly prospering by his energy during the last three or four decades the achievements which have brought this success to her have in some instances purchased far-reaching benefits to many parts of the habitable globe. We have only to reflect upon the perfection of the processes employed in the spinning and weaving of linen, and the epoch-marking innovations in naval architecture inaugurated in 1870 by Sir Edward Harland, which have been continuously applied and perfected by his successors in the shipbuilding yard which it will be your privilege to visit during this busy week. The development of these new principles may in a sense be regarded as having annihilated sea distance, knitting together all parts of our huge empire, and bringing within comparatively easy reach the far-away places of the world. Neither do we forget the important part played in this triumph over storm and wave by our illustrious townsman, Lord Kelvin, who by his perfection of the mariner's compass has laid mankind under lasting obligations to his genius.

I shall refer to but one other invention of comparatively recent birth in Belfast. The application of the pneumatic principle to vehicular tyres by our townsman has in a similar sense anniliated land distance. Without its aid the motor-car (in which so many of you now speed upon the wings of the wind on your errands of mercy) would have been an impossibility. The indirect outcome of the use of the Dunlop tyre has been the planting of flourishing industries in many English and continental centres, as it has already covered with rubber trees the slopes of Ceylon and the swamps of the Malay Peninsula, whilst its direct effect has been the establishment of a revolution in human intercourse. From this remarkable invention Belfast as a city has, however, only reaped the benefits which have been enjoyed by all parts of the civilised world owing to the headquarters of the industry being established in Coventry.

The present visit of the British Medical Association coincides with an epoch in our progress and history far more important and wide-reaching than those to which I have just referred. You do not find us gathered round the stocks to witness the launch of a huge record-breaking ocean liner, or watching the gradual evolution of a pneumatic tyre, but you discover us in the act of taking the first steps in the inauguration of a movement compared with which all other of our past achievements are to be considered as of minor importance. You see us gathered around the cradle of an infant university confronted by potentialities beyond the power of language to describe or of human thought to foreshadow.

THE NEW UNIVERSITY.

The problem of higher education presents at all times to the thoughtful mind a fascinating study, but on its purely literary and scientific aspects the present is not the occasion to dwell. The birth of a university brings

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But not the praise—since he faded from our sight, wearing the laurel crown of our great Association.

THE GROWTH OF BELFAST.

I shall not pause to dwell, as is usual on such occasions, upon the ancient historical associations of the city which the members of our organisation honour by their visit. Our local historian, Benn, commenced his "History of Belfast," written in 1877, with the short sentence, "Belfast as a town has no ancient history." Our position offers a marked contrast in this respect to the cities in which the annual meetings of the Association are frequently held in England where the history of the meeting place is often in miniature the history of England. This fact—as useless to deplore as it would be vainglorious for us to exult in—nevertheless has not been without its stimulating effect upon individual and collective exertion, teaching the sturdy citizen of Belfast that "He lives to build not boast a gen'rous race." It will be obvious to you how thoroughly he has learned the lesson if you survey our busy wharves with their evidences of a flourishing world-wide commerce, as you see the stately leviathans which glide down to the sea from our shipbuilding yards, and as you catch a glimpse of the myriads of human spiders who spin and weave from morn till night in our great flax mills and linen factories.

I shall not weary you with statistics which demonstrate the almost unparalleled if not absolutely unique progress made by Belfast in recent years; it is sufficient to remind you that since the Association honoured the city by its first visit, just a quarter of a century ago, the population has almost doubled and is still making rapid strides, which in a few more years promise to reach the grand total of half a million souls. At the same time it is a source of honest pride to the thoughtful Belfast man that whilst his native city has been directly prospering by his energy during the last three or four decades the achievements which have brought this success to her have in some instances purchased far-reaching benefits to many parts of the habitable globe. We have only to reflect upon the perfection of the processes employed in the spinning and weaving of linen, and the epoch-marking innovations in naval architecture inaugurated in 1870 by Sir Edward Harland, which have been continuously applied and perfected by his successors in the shipbuilding yard which it will be your privilege to visit during this busy week. The development of these new principles may in a sense be regarded as having annihilated sea distance, knitting together all parts of our huge empire, and bringing within comparatively easy reach the far-away places of the world. Neither do we forget the important part played in this triumph over storm and wave by our illustrious townsman, Lord Kelvin, who by his perfection of the mariner's compass has laid mankind under lasting obligations to his genius.

I shall refer to but one other invention of comparatively recent birth in Belfast. The application of the pneumatic principle to vehicular tyres by our townsman has in a similar sense anniliated land distance. Without its aid the motor-car (in which so many of you now speed upon the wings of the wind on your errands of mercy) would have been an impossibility. The indirect outcome of the use of the Dunlop tyre has been the planting of flourishing industries in many English and continental centres, as it has already covered with rubber trees the slopes of Ceylon and the swamps of the Malay Peninsula, whilst its direct effect has been the establishment of a revolution in human intercourse. From this remarkable invention Belfast as a city has, however, only reaped the benefits which have been enjoyed by all parts of the civilised world owing to the headquarters of the industry being established in Coventry.

The present visit of the British Medical Association coincides with an epoch in our progress and history far more important and wide-reaching than those to which I have just referred. You do not find us gathered round the stocks to witness the launch of a huge record-breaking ocean liner, or watching the gradual evolution of a pneumatic tyre, but you discover us in the act of taking the first steps in the inauguration of a movement compared with which all other of our past achievements are to be considered as of minor importance. You see us gathered around the cradle of an infant university confronted by potentialities beyond the power of language to describe or of human thought to foreshadow.

THE NEW UNIVERSITY.

The problem of higher education presents at all times to the thoughtful mind a fascinating study, but on its purely literary and scientific aspects the present is not the occasion to dwell. The birth of a university brings

at once to the mind of the medical man the serious consideration of the examination standards by which the new portal to the profession is to be guarded, and also the still more vital subject of the efficiency of the training and teaching to be carried out under its direct supervision. To the layman the event is of still greater importance; the medical student of to-day becomes the physician or surgeon of to-morrow, armed with his lifelong commission in the struggle for the relief of suffering and the prevention or cure of disease, and in his hands are often placed the issues of life and of death. For these reasons every member of the community becomes interested in or involved more or less at some period of his existence in the efficiency of the institution which has presided over the training of his medical attendant. Hence no pains should be spared by the municipality or by the State to make this training as perfect as possible. Many people are apt to think, if they think at all, that the recognition of the medical man as a valuable public or national asset is an idea of modern growth, but you all remember that stirring episode in the *Iliad*, where Homer 3000 years ago makes Idomeneus exclaim, when commanding Nestor in the din of battle to fly to the relief of the wounded leech, Machaon, "when trembling Greece for her physician, feared":

> "Ascend thy chariot, haste with speed away;
> A wise physician, skilled our wounds to heal,
> Is more than armies to the public weal."

It behoves us as medical men periodically to review our position as regards the teaching and practical training of those desirous of joining our ranks, and upon an occasion like the present no more suitable subject could occupy our attention than a survey of the existing conditions of medical education, and a scrutiny of the requirements and modifications of these methods necessitated by the progressive march of scientific research as knowledge grows from more to more. I am confident that such a survey will also incidentally reveal evidence to satisfy the medical profession, as represented by this great Association, that our new university is fully alive to its serious responsibilities, and will be able to maintain the efficiency and to uphold the dignity of medicine in this portion of His Majesty's dominions.

THE HISTORY OF THE BELFAST MEDICAL SCHOOL.

The early history of medical teaching in any educational centre is closely identified with the growth of the facilities afforded by hospital accommodation. The first mention of any such institution in Belfast, according to the testimony of Dr. Malcolm, who more than half a century ago wrote the annals of the old General Hospital, is to be found in the appalling statement that in 1689 an epidemic raged throughout the north of Ireland, thousands of the stricken being crowded into "the great hospital at Belfast," which in the course of six months became the grave of 3762 victims. This institution was evidently a temporary one, and probably under military control, since no further mention is found of any form of organised medical relief till the inauguration of the Belfast Charitable Society three-quarters of a century later, followed in 1792 by the establishment of the Belfast dispensary system, and a few years later by the erection of the lying-in hospital and the creation of a fever hospital, the first institution of the kind established in Ireland.

The old General Hospital, which still stands in Frederick-street, was commenced in 1815 and opened in 1817, in the midst of a terrible epidemic of typhus, the victims being carried into the new buildings, whose freshly plastered walls were still dripping with moisture, and whose stairways had been scarcely rendered secure by the overworked carpenters and masons. During the first three years of its existence no fewer than 3527 patients were admitted within its walls. Malcolm dwells with pride upon this period of our local history, when he states that "Belfast presented a glorious spectacle of philanthropy deserving the admiration of the world. The prosperity of her later years is doubly blessed by the reflection that when but in the infancy of her strength she drained her dearest resources to help the desolate and afflicted, to dry the orphans' and the widows' tears, to feed the hungry and clothe the naked, and rescue a myriad host from impending destruction." It was during such a period of storm and stress that we learn of the first beginnings of the Belfast Medical School, when, in 1820, at the termination of the epidemic which had stricken one-fourth of the entire population, pupils were first admitted into the wards of the hospital to study disease at the bedside and to act as clinical clerks and dressers, in accordance with a resolution passed by the committee in 1817, just before the outbreak of the pestilence. (My auditors will therefore observe that in a few years hence the Belfast Medical School will be celebrating the first centenary of its existence.) This decision was the immediate outcome of the enlightened spirit which stimulated the founders of the charity when they deposited in the first stone, laid in 1815, the inscription dedicating the building to the advancement of medical science and the relief of suffering:

HOC NOSOCOMION
AEGROTIS ET ARTI MEDICAE
SACRUM.
IN SALUTEM PUBLICAM (ETC).

Not content with the mere admission of students to watch the practice of the medical staff in the wards, we find in 1826 that the committee were fully alive to their responsibilities, realising that clinical instruction must be for all time an obligatory portion of the duties of the physicians and surgeons. Accordingly, a systematic course of clinical lectures was commenced in the following summer, and these were most scrupulously persevered with, the lectures being delivered in the theatre of the hospital at least once a week to the whole body of students attending the institution during the winter and summer sessions. This practice, in addition to the bedside teaching, was continued for half a century, when the clinical instruction in many of the older teaching hospitals was often limited to desultory conversation around the bedside in the wards. The first theatre lecture of this systematic course was delivered by Dr. James McDonnell, a very remarkable man—an intellectual giant in his day—whose name is associated with every movement for the advancement of medical education and for the relief of suffering.

James McDonnell.

If any one name is to be singled out from amongst the founders of the Belfast Medical School, as we look backwards at the present momentous stage of our progress, it must be that of McDonnell. To him we owe the origin of the first hospital established in Ireland for the treatment of fevers, and to him is due the honour of founding the Belfast Dispensary. Malcolm relates how in times of the greatest apathy towards this, his favourite, project, when almost unassisted by an encouraging hand, he continued to tend and watch over it with fostering care and unabated interest until it had reached a vigorous maturity. He was the leading spirit in the campaign that called into existence the Belfast General Hospital. As an evidence of his marvellous energy and of the manysidedness of his colossal character, it may be mentioned that he was also the founder of the Natural History Museum, still standing in College-square and still doing duty as our only scientific museum for the education in natural history of the people of the city. There stands his splendid bust in marble, alongside the mummy of an early Egyptian dynasty, and some geological specimens gathered by his own hands or chiselled out by his faithful servant, Mike, who in his day enjoyed almost as large a degree of popularity as his worthy master. In the midst of his arduous labours in the interest of humanity McDonnell found time for the pursuit of original research, and contributed valuable additions to our knowledge upon the mechanism of the circulation. His work upon the variations in the pulse under diverse physical conditions and alterations in the body posture shows the remarkable originality of a mind capable at the same time of patiently accumulating enormous numbers of observations and rightly interpreting their physiological and clinical importance. Born in the Glens of Antrim in 1762, McDonnell graduated in Edinburgh in 1784 and lived till 1845.

Though systematic courses of lectures in anatomy, physiology, and chemistry had been delivered for some years in the Academical Institution, it was not till 1835 that the Belfast Medical School, started so modestly and unpretentiously in 1820, became firmly established. In this year

(1835) chairs of surgery, midwifery, and materia medica were added to those of anatomy and physiology and chemistry, and in the following year chairs of medicine and of botany were created, all in connexion with the Belfast Academical Institution, which with the General Hospital constituted the home of the Medical School up to the establishment of the Queen's College in 1849. The first list of professors appointed to these medical chairs contained the names of men some of whom have left an indelible impression upon the science of medicine. A brief glance at their achievements will show that from the moment of its birth the Medical School of Belfast was characterised by an originality of thought, an earnest and conscientious recognition of its high mission and an intense practical trend—qualities which stand out prominently in its subsequent history, and which still remain as its chief distinguishing features after almost a century's patient and noble service.

Thomas Andrews.

The first of these men was Thomas Andrews, born in Belfast in 1813. He practised as a physician actively and successfully and was one of the clinical teachers in the General Hospital up to the year 1846. Though he finally abandoned the practice of medicine for the profession of the theoretical chemist, we justly claim him as one of those who laid the foundations of our Medical School upon a thoroughly scientific base. Bringing his great intellect to the elucidation of clinical problems at a time when purely scientific methods were not often applied at the bedside, he gave a high character to the clinical teaching at the hospital, and adapted his lectures on chemistry all through his long occupancy of the chair at Queen's College to the students of medicine in a practical manner only possible to a teacher highly trained in clinical methods. His discovery and demonstration of the continuity of the liquid and gaseous states, his achievements in the domain of the liquefaction of gases, facilitated by his discovery of the critical point in their condensation, and his research work on the latent heat of vapours, on the heat of chemical combination, and on the qualities of ozone, have gained for him an imperishable name amongst the ranks of scientific discoverers.

At this university stage in our career I feel it my duty to pay a tribute to the remarkable foresight and fearless honesty of this great pioneer of medical education. He was the first to see clearly half a century ago that nothing but the creation of an independent northern university could meet the requirements of Belfast, and he never lost a suitable opportunity of impressing his conviction upon those responsible for the state of higher education in the country. In 1867 he published his "Studium Generale," in which he urged powerfully the Government of the day to elevate Owens College, Manchester, to the rank of a university of the Scottish or German type, contending that the system of affiliating teaching institutions with a central university was fatal to freedom and intellectual progress, leading to "the degradation of all high mental culture whether scientific or literary."

Henry MacCormac.

The first occupant of the Chair of Medicine, created in 1836, was Dr. Henry MacCormac, father of Sir William, the late President of the College of Surgeons of England. He was born in 1800 and lived till May, 1886. In a short sketch of the life of this remarkable man, published in the Transactions of the Ulster Medical Society, I have contrasted his mental qualities with those of Andrews. From this obituary I may be permitted to quote a few sentences. His claim to a position amongst the immortals is not that of a discoverer, of a pioneer, or of a reformer. He belongs to the rarest group of medical celebrities—MacCormac was a seer. Many of us who knew him well are only now beginning to realise his remarkable prevision. He saw clearly, as only the seer can, things whose advent, if we yet see at all, we see through a glass darkly. Andrews found out new truths after most laborious though brilliant methods of research, not advancing one step until he had patiently satisfied himself of his data; MacCormac saw them afar off by means of some gift possessed by the few, but when he paused to reason upon the nature of the truth revealed to his subtle instinct he frequently erred. Andrews's results were the outcome of the exercise of rare reasoning powers, drawing safe conclusions from observed facts, and leading with scientific precision often to important advances in knowledge.

MacCormac in all fairness must be regarded as the father and originator of the open-air treatment of phthisis and scrofula. The unity of both diseased conditions, as well as that of the so-called white swelling in joints, was clearly realised by him at an early period in his medical career. In his work entitled "The Nature, Treatment, and Prevention of Pulmonary Consumption, and Incidentally of Scrofula," published in 1855 in London, Paris, and Leipsic, he dwelt with almost painful repetition upon the influence of impure or rebreathed air as a predisposing and a vital cause of tuberculosis.

I am conscious that in an address dealing with the history of our medical school and its present position as regards medical education I am travelling outside the track of my subject in dwelling upon MacCormac's claims as the man who first put into practical shape the open-air treatment of phthisis, which is to-day regarded as one of the most important advances in modern therapeutics. I do so because it brings home to us the greatness of a mind which for many years continued to stamp its original bent upon our medical school at the most impressionable stage of its existence. It is also, unfortunately, necessary to emphasise his claims to priority, since these have been somewhat lost sight of by the prominence given to the valuable labours of Hermann Brehmer.

Two years after MacCormac had graduated and commenced the practice of his profession Brehmer was born, and when his first work appeared in Berlin in 1856, a year after MacCormac's classic was published, he was only 30 years of age, though it must be acknowledged that his researches were independent and original, since we find that he had already established a small sanatorium in Görbersdorf in 1854. Writing in 1855 MacCormac states that: "For a long period of years I have, with an increasing fullness of conviction, discerned the undesirable results flowing from an ill-renewed atmosphere. I am perhaps the only physician of my time and standing, possibly the only one who is intimately and entirely convinced that consumption is not only when taken early very often removable, but, what is of still greater importance, that with proper means and appliances it is in every single instance preventable." The proper means and appliances he defines in the constant formula to be used by the rich and poor—namely, to sleep with their windows largely open, and to spend as much time as possible in the open air. For those already tuberculous he insists that there shall be a ceaseless, unlimited supply day and night, winter and summer, of pure fresh atmosphere in the apartment of the sufferer, his rule being that the chamber atmosphere must be as pure and untainted as the open air, in which the patient should spend as much time as his strength, the weather, the season, and his means will permit. These words, which I quote from his work of 1855, may be taken as containing every vital essential of the most modern method of treating this fell disease, and he emphasises the importance of a liberal supply of highly nutritious food. It is a somewhat sad reflection that the invaluable teaching of this genius of his day required almost half a century for its full fruition. In his own time, and as early as 1855, he complained "that whilst some complied intelligently with his suggestions, others treated every direction with indifference; but to cleanse the Augean stable was a very trifle compared with the difficulties encountered by him who would unmask a single prejudice, supersede a single habit, however hurtful and pernicious to his kind." I am addressing some individuals who are old enough to remember that upon more than one occasion Dr. MacCormac figured in the local police-court, being summoned by irate patients for smashing with his walking cane the panes of glass in the windows of the sick chamber when he found these hermetically sealed against the admission of the outer air, so profound was his conviction and so consuming was the fire of his zeal.

When our great Association next honours this progressive city by its presence I feel confident that one blot upon its fair name will have disappeared—a noble statue of this great physician, I trust, shall adorn one of our leading thoroughfares, testifying to our appreciation of his genius and our gratitude for his far-reaching labours in the interest of suffering humanity. There is an excellent marble bust of this venerable sage in the art collection of the municipal

library, which can supply accurate material for an ornate monument, such as has already been erected in Germany to the cherished memory of Hermann Brehmer. No more suitable time could be chosen for the launching of such a worthy project than the present, when all Ireland has been awakened by the noble crusade against tuberculosis inaugurated by Her Excellency the Countess of Aberdeen.

Alexander Gordon.

In 1847 Alexander Gordon, the originator of the radial splint and clavicular apparatus, was elected to the Chair of Surgery in the medical school, whilst its home was under the roof of the Academical Institution, and he was transferred to the new chair established in Queen's College in 1849, upon which he continued to shed an ever-increasing lustre till his retirement in 1886, an unbroken period of almost 40 years. Gordon was a robust thinker, the bent of whose powerful mind was inventive or creative, though he was also one of the closest and most accurate observers of his day—a combination of intellectual qualities not often met with in medicine. Confining his mental activity mainly to the domain of fractures, whose etiology, pathology, and treatment he found in a condition of chaos, dominated largely by empiricism, he left it with its pathological problems and clinical signs reduced to order and its treatment based upon a purely scientific foundation. If we reflect for a moment upon the state of the literature of fractures at the lower end of the radius, the outer end of the clavicle, and at the neck of the femur, when Gordon commenced his studies it might be compared to the condition of a stagnant pool, which he transformed into a clear and crystal spring. A remarkable tribute to his genius and accuracy is afforded by the revelations of the Roentgen rays when applied to the elucidation of recent fractures, a method which has corroborated in many details his views, maintained fearlessly against a host of hostile critics. In a sense, less poetical than it may seem to some of my auditors, Gordon may be said to have forestalled the use of the X rays, his colleagues being often astonished at how, guided by his highly-trained sense of touch, his vision almost seemed to pierce through the skin and soft tissues to the position of the fragments in a swollen and œdematous limb. His lasting monument will be found in his unrivalled collection of fractures, to be seen in the pathological museum at Queen's University. The influence of Gordon's teaching in the class-room, in the operating theatre, and by the bedside in the wards of the old General Hospital was a powerful factor in the advance of the medical school, nor was his power due exclusively to his originality in thought and practice; few teachers ever held a more undivided sway over the hearts of their pupils than did this fearless and honest and pure-minded surgeon.

I am addressing many of Gordon's old pupils, one of whom—our local treasurer—loves to relate a striking instance of his originality, patience, and resourcefulness in overcoming apparently insuperable difficulties. No better illustration could be given of the genius of the great surgeon who so materially assisted in the building up of our Medical School during the middle of the last century. Early in his professional career he started to build with his own hands a small sailing boat. After the final completion of his task, and not till then, did he discover that his work of art, like the famous picture of the family of the Vicar of Wakefield, was too large to be removed through the door of the apartment in which it had been created. Nothing daunted, Gordon proceeded with his own hands to cut the small vessel in two, and, after its successful removal from the loft in which he had worked at it for several months, he conceived the idea of lengthening the boat. This he successfully accomplished by the insertion of a new central portion of considerable length between the divided ends of the original, thus foreshadowing the possibility of one of the greatest feats ever performed by the modern architects of our large ocean steamers.

Peter Redfern.

From the foregoing brief sketch of a few of the many master minds which moulded the character of our local school of medicine during the critical period of its early existence, before and immediately after the establishment of the Queen's College, we are led up to the advent of the illustrious teacher whose influence more than that of any other man consolidated its varied units and created for it a reputation which placed it amongst the foremost group of teaching institutions in the United Kingdom. Professor Peter Redfern in 1860 succeeded to the Chair of Anatomy and Physiology, first established by Drummond and afterwards occupied by Hugh Carlisle. The number of medical students attending classes in Queen's College at this time, though steadily rising from its opening in 1849, had only reached the total of 116. As the fame of the anatomical department under Redfern began to travel beyond the boundaries of the north of Ireland the numbers markedly increased, so that within a period of 15 years they had doubled, and in 1881–1882 the medical roll of the College contained the name of 364 students, whilst the hospital register showed those of some other senior men pursuing their clinical studies after having completed their collegiate courses. It will probably surprise many of my auditors to hear that for several years about this period our local school of medicine was the third largest in the United Kingdom, Edinburgh and Glasgow alone exceeding it numerically. Redfern continued to fill the double Chair of Anatomy and Physiology till 1893, when he was compelled to retire owing to the operation of the age limit, the Crown having previously extended his tenure of office beyond the regulation limit in just recognition of his exceptional services. He was succeeded in the Chair of Anatomy by Professor Symington, an anatomist of world-wide fame, so that our anatomical school has enjoyed an unbroken period of nearly half a century's pre-eminence.

It is a difficult task to do justice to the many brilliant gifts of Redfern as a teacher of anatomy. The accuracy and range of his knowledge, the fascinating lucidity of his expositions, his polished oratory, and the magnetic influence which he wielded at the dissecting table and in the class-room, are still cherished memories with his many old pupils occupying honourable positions in the profession throughout the world. But if there be a single gift or quality to which we are to attribute the secret of his successful career as a teacher, or as the founder of a school of anatomists, it must not be to any of those brilliant powers just mentioned. In him the quality of *thoroughness* developed into a master passion. Every department of his anatomical work was dominated by it; with him, as regarded the teaching of anatomy and physiology, "there existed not a trifle." He might well, with pardonable pride, point to the success of his life work in the report of the inspectors appointed by the Medical Council when they stated their opinion that the students of Queen's College, Belfast, were taught a great deal too much of anatomy, for he strenuously held that an intimate and practical acquaintance with the details of anatomy must ever prove to be the only solid foundation upon which a progressive science of surgery and medicine can be erected. Into his well-earned leisure and retirement he carries with him the reverence and the love of all his old pupils. Looking back upon the strenuous labours of his long life to give to anatomy the first place in medical education, he may justly claim to be the real founder of our new and progressive local school of operative surgery, which bears the stamp of its great sire in its thoroughness, patient and scrupulous attention to every practical detail, and in its conscientious devotion to the ideal of the sacredness of human life.

James Cuming.

During the long term of Redfern's occupancy of the Chair of Anatomy the Chair of Medicine was filled by James Cuming, who died in harness in 1899. Some of my auditors will remember him as President of the British Medical Association when your great organisation visited Belfast in 1884—a memory, indeed, which almost overwhelms him who ventures to address you to-night. Would that Cuming's mantle, along with his memory, had fallen upon his unworthy successor to this honourable position! During his tenure of office as professor he was fortunate in occupying for 34 years the office of visiting physician to the Royal Hospital, where he was the colleague of Dr. James Smith, whose powers as a clinical teacher rarely have been excelled. As Smith's brilliancy at the bedside proved a valuable asset to the Medical School, so in those days Cuming's prowess in the class-room became soon no less generally recognised. He was the thorough master of an almost perfect literary style—the outcome of a lifelong and

intimate acquaintance with the best writings in ancient and modern literature—which made his class-room expositions models of elegance, lucidity, and power.

It is doubtful if the brilliance of the *personnel* of any medical school in the United Kingdom has ever excelled that of our own during the "seventies" and "eighties" of the last century, when the list of our teaching staff contained such names as those of Redfern, Andrews, Gordon, Cuming, and Smith.

Recent History.

Notwithstanding, however, the brilliancy of such a galaxy, the ill-advised and disastrous legislation which effected the dissolution in 1882 of the Queen's University of Ireland, and in its stead established the examination board known as the Royal University, immediately checked the increasing prosperity of the Belfast Medical School and at the same time retarded the growth of true academic life in Ireland outside Trinity College, Dublin. The numbers of students studying medicine at Queen's College, Belfast, showed a marked falling off, and by the year 1888, when the Royal University Act had come into full operation, these had fallen from 364 to 220, a decline corresponding to about 40 per cent.

When all allowances have been made for normal fluctuations, it is gratifying to find that of late years the position of our Medical School has been steadily, if slowly, improving, especially when we reckon the increasing percentage of senior students who continue to attend the clinical instruction in the hospitals after having finally completed their academical courses in the lecture halls of the College. So that we now find ourselves at the commencement of the university stage of our existence with an average roll of about 270 students of medicine preparing themselves for their serious life work at the different teaching institutions in our city.

Clinical Resources.

The mention of these institutions brings me to a most important point. I need not remind my hearers that large and prosperous art and science faculties may flourish in a university established anywhere independent of the density of the population in its immediate vicinity. It is otherwise with an efficient medical faculty, as such cannot exist unless in a centre sufficiently populous to supply every hospital facility for the practical teaching of medicine and surgery and their allied specialties. It is conceivable that hospital facilities considered adequate for the wants of a medical department attached to an affiliated college might fail to meet the requirements of the medical faculty of a university, and it behoves us as a profession to inquire into the amount and nature of the clinical pabulum placed at the disposal of those students who may select our new university as the portal for their entrance into the ranks of the brotherhood of scientific medicine.

There are at the present moment upwards of 3500 beds freely available for clinical instruction in Belfast, all of which from time to time during late years have been utilised by the students attending our Medical School. These are made up in the following manner:—

General Hospitals.—Royal Victoria Hospital, 300 beds (266 of which are at present occupied); Mater Infirmorum, 150 beds (122 of which are at present occupied); Union Hospital, 1400 beds.
Fever Hospitals.—Purdysburn Municipal Hospital, 168 beds; Union Fever and Small-pox Hospitals, 260 beds.
Children's Hospitals.—Queen Street Hospital, 45 beds; Ulster Hospital for Women and Children, 28 beds; Throne Children's Hospital, 35 beds.
Eye, Ear, and Throat Hospitals.—Clifton Street Hospital, 35 beds; Great Victoria Street Hospital, 25 beds.
Skin Hospital.—Clifton Street Skin Hospital, 32 beds.
Maternity Hospitals.—Townsend Street, 32 beds, and Extern Maternity (about in all 900 cases yearly); Ulster Hospital, 2 beds (and 6 gynæcological beds), with Extern Maternity (267 cases yearly).
Samaritan Hospital.—25 beds.
District Lunatic Asylum.—1000 beds.

If we scrutinise the amount of teaching material which flows through the great extern department of the Royal Victoria Hospital annually, every case being utilised for instruction, we shall find that the number of new cases amounts to about 30,000, representing an attendance of 90,000; these, with the attendances at the externs of the Mater Infirmorum and the various special hospitals, make a huge total of about 170,000 each year. It is obvious at a glance that the clinical and extern teaching facilities in Belfast are much more than sufficient to meet the demands of a medical faculty of the largest possible dimensions. All these teaching institutions are of quite modern construction, and as the members of the Association will have the opportunity of seeing for themselves during the week, the Royal Victoria Hospital is probably better equipped for purposes of clinical instruction than any other teaching institution of its size in the United Kingdom. In order that you may form some idea of how this great mass of varied clinical wealth is being at present utilised, it is only necessary for me to add that outside the large staff of university professors and lecturers there are physicians and surgeons and specialists to the number of about 60 engaged actively from day to day in the teaching of medical students at the bedside and out-patient departments of the charitable institutions provided for the relief of the suffering in our city.

Laboratories.

It is unnecessary to weary you with details regarding the staff of professors and lecturers engaged in teaching at the university in the Faculty of Medicine, most of whom are already known to you by their valuable contributions to the literature of medicine. Nor is there any necessity to dwell upon the series of splendidly equipped new laboratories—physical, biological, chemical, pathological, physiological, and pharmaceutical—which, through the indefatigable exertions of Vice-Chancellor Hamilton and the munificence of our citizens and of the late Sir Donald Currie, have been recently added to the university buildings.

I hope I have been able to satisfy you, from the history of our past progress and from the evidences of the amplitude of our present resources, that our new university starts upon its educative mission fully equipped for maintaining the best traditions and highest ideals of British medicine. But at the present critical stage in the progress of scientific medicine and surgery there lies, beyond the venerating of ancient tradition and the living up to stereotyped, lofty ideals of teaching, a more solemn duty imposed upon the responsible heads of every medical school and faculty of medicine in each university. This duty consists in the establishment of radical reform in the curriculum, urgently necessitated by the enormous accumulations of new scientific facts and theories; and it is at once obvious that the error of clinging to obsolete ideals is less pardonable in a young university than in an ancient medical corporation.

DEFECTS OF THE MEDICAL CURRICULUM.

This brings me to the consideration of the second part of my remarks—the present unsatisfactory state of medical education—a subject bristling with difficulties; but I shall only detain you for a brief period with the most important and pressing of these difficulties. All authorities agree that a medical curriculum which was planned 40 years ago is now entirely out of date, since at that time bacteriology was scarcely dreamt of; medicine, surgery, and gynæcology were in a rudimentary state contrasted with their present condition; sanitary science was practically non-existent, and it was then still possible to obtain a degree or diploma in medicine in less than a three years' period of study. I need not remind you that the stringent regulations of the General Medical Council of to-day render it impossible for the student of medicine to obtain his qualification to practise until after the lapse of a minimum period of five medical years, or 57 months from the passing of his entrance examination and registration.

The aim of the General Medical Council in prolonging the minimum period of study from four to five years was to enable the student to devote entirely his fifth year to clinical or bedside study in medicine, surgery, and the special departments, all of which had in the meantime increased enormously in complexity and importance. But the preliminary sciences—biology, physics, chemistry, and physiology—had also grown prodigiously, with the result that the additional year has been practically swallowed up in the study of these sciences or appropriated by the specialised teachers in these subjects. (As regards the teaching of anatomy, it is obvious from the enormous development of the final or practical subjects that the prominent place justly given to this subject, whose study occupied such a large proportion of the students' time, is now no longer possible as it was in Professor Redfern's day.) The outcome of the existing regulations is that the brain of the student failing to expand in assimilative power with the growth of advancing science, we have arrived at the crux so ably

propounded by Professor Starling at the Sheffield meeting last year of getting two pints into the one-pint pot. The disastrous effect of the attempt to achieve this impossibility is seen in the rather startling fact demonstrated by the investigations of the General Medical Council, which prove that the mean or average time actually spent by the medical student in obtaining his degree or diploma is not the minimum period of 57 months, but one of almost 84 months, just falling short of seven long years by only three weeks. Nor is this, in my opinion, the worst evil of the many arising out of the working of the present ill-arranged curriculum of medical education. A considerable proportion of students, after failing in passing the examinations in the preliminary subjects of physics, biology, and chemistry, or before presenting themselves to the examiners in anatomy and physiology, proceed to attend the classes in the advanced or final subjects, and put in an attendance at the hospital with the one or two sets of examinations in these earlier subjects still hanging over their heads, which paralyse their capacities for obtaining anything like an efficient training in the subjects whose practice is to become their ultimate life work.

The evil of the system which permits such a course is fully seen in the cases of those students who only succeed in passing their examination in the intermediate subjects at a stage in their career when they have completed, or almost completed, their entire academic courses and hospital attendances, with the pernicious result that their last year before qualifying is entirely devoted to the grinder or spent in cramming the undigested contents of the various text-books to the total neglect of the invaluable mine of wealth available in the wards and the extern department of the hospitals, and which they had been merely able to tap in the preceding years of their study. After more than a quarter of a century's experience as a hospital teacher and as an examiner, embracing a practical acquaintance with the working of three universities in the United Kingdom, I feel constrained to believe that in the sending out of *men qualified immediately to enter upon the routine practice of their profession*, we are, in some respects at least, behind the results obtainable in the old days of apprenticeship.

THE REFORMS NECESSARY.

It is easier to point out the evils in the existing system of medical education than to suggest remedies for them, just as it is easy to diagnose a serious malady and often impossible to suggest a remedy for its cure. But, fortunately, the indications for treatment in the case of the more important of these evils are as clear as they are imperative. The preliminary and intermediate periods, amounting to three years out of the minimum of five years, must be shortened, and the clinical period of study must be increased if we are to train more efficiently, and turn men out of our teaching institutions properly equipped for their serious life work. How is this readjustment of the curriculum to be accomplished? Obviously an enormous aid to it would be a compulsory examination in experimental physics and chemistry at matriculation. Such an examination could never dispense with the necessity of a complete academic course in these subjects; it would ensure the student having some knowledge of the principles of both sciences from the start of his college work, and enable the average lad easily to pass his further examinations in them within a period of 12 months from matriculation. Already the old notion that the stage of school life should be entirely devoted to purely literary studies is showing signs of yielding to the urgent pressure of modern ideals, which demand that boys must be trained to observe and reason upon the operations of the natural forces continually manifesting their presence in the world around them. Owing, however, to the present unsatisfactory arrangements for the teaching of science in the majority of the secondary schools, little relief is to be immediately expected from this method of shortening the curriculum of the preliminary subjects, though we can confidently count upon a steady improvement in the amount of elementary scientific knowledge possessed by medical candidates presenting themselves for matriculation; hence our new university has wisely permitted physics and chemistry to appear in the list of optional subjects for the entrance examination.

It is manifestly out of the question that we should be compelled to wait for the universal introduction of science teaching in the public schools before attempting to shorten the curriculum in the preliminary medical subjects. Moreover, such a consummation, however devoutly wished for, could not be expected to aid us effectually in dealing with the still more important studies of physiology and anatomy. There is a growing conviction, amounting amongst those best qualified to judge aright in this matter to a consensus of opinion, that a prolongation of the period devoted to clinical studies can only be achieved (without unduly lengthening the entire curriculum) by *a radical change in the method of teaching the entire group of preliminary and scientific subjects*.

The crux of the question centres itself in the problem of instituting the desired reform without lowering the standard of the student's knowledge in these subjects. It would be a retrograde, and perhaps disastrous, epoch in medical education should each of our specialised teachers begin to realise that his own particular subject was not the most important one in the curriculum; but "Art is long and Time is fleeting," and, as Sir Felix Semon reminds us, "Technique is difficult." Were I placing merely my own convictions—the outcome of years of thought and observation—before you upon the urgent necessity of reform in the teaching of physics, biology, chemistry, physiology, and anatomy *to the medical student*, I would be overwhelmed by the feeling that I was treading upon dangerous ground, beset with many snares and numerous pitfalls; but the University of London has boldly declared for reform, and has decided that the teaching of these subjects must be conducted *with due regard to their bearing upon the special requirements of the student of medicine*. A fact which ensures the success of this great revolution is the pleasing one that the campaign is being led by the teachers of these sciences.

Professor Starling, a member of the Senate of the University of London, who occupies the Jodrell Chair of Physiology in University College, made the spirit of the new regulations clear at our last annual meeting in Sheffield. He said we must acknowledge that the present training in science received by the medical student fails in its end and does not make him scientific. The words of this great teacher of one of the intermediate subjects are so weighty they will bear repetition when he states "that from the very commencement of his medical curriculum the work of the student should be directed; every scientific subject which he studies, whether it be chemistry, physics, or physiology, should be considered only in its bearings on his future work as a medical man." I would venture to suggest that these words should be written in letters of gold and set up in the retiring-room of each teacher of the preliminary and intermediate subjects in our universities and medical schools, when soon we would cease to see the lamentable fiasco of the attempt to make every medical student an accomplished physicist, an analytical chemist, an experimental physiologist, a practical botanist, and an expert zoologist, as these phantoms dangle before his mental vision whilst he is already far advanced in putting in a vain and perfunctory attendance at his final classes, or whilst he is absent-mindedly sauntering about the extern department or wandering aimlessly through the hospital corridors. Professor Starling maintains that this "directed" method of teaching should also be applied to the subject of anatomy, where the minute knowledge which is insisted upon at the present time as regards the direction of muscular fibres, the insignificant markings on the bones, or the identification of fragments of human bones can have no bearing on the student's future work, even if he is to be an operating surgeon, and that all anatomy should be learned as surgical and medical anatomy. He believes that "by such a method, far from sacrificing the scientific training of the student, we would ensure that the whole of his science studies, preliminary or intermediate, would be built up with his clinical training into one compact scientific fabric—the science of man and his diseases."

The application of the principle of this applied or directed method of teaching is planned by the Senate of the University of London to reduce the former three years of preliminary and intermediate study to two years and a half, and the new arrangements even permit of this period, under certain conditions, being further reduced to two years. It is to be noted, however, that as the clinical part of the student's course is now to be fixed at three years there is,

therefore, a lengthening of the entire curriculum from the minimum of five to five and a half years. Since, however, only a small percentage of students are able to graduate under about six years, it is confidently anticipated that by the better division of work the new arrangements will really shorten the entire period of study. These new regulations have come into operation in the London University during the present month.

Beyond all shadow of doubt, the time has fully come when a general and complete overhaul of the medical curriculum in all the universities and in every medical school in the United Kingdom is urgently necessary. There can also be little doubt that the reconstruction must be carried out upon the lines laid down by the University of London.

THE ATTITUDE OF THE QUEEN'S UNIVERSITY OF BELFAST.

The 20,000 members of the great British Medical Association have a right to ask what is the attitude of the Senate of the new Queen's University of Belfast regarding the programme of medical education. This is not a question whose interest is exclusively centred in the functions of the General Medical Council, since the honour, the efficiency, and the traditions of the profession are more or less influenced by the accession of each batch of medical graduates permitted to swell its ranks every spring and autumn through the new portal. Nor is it a subject of interest only to the members of the profession resident in Ireland, since a considerable proportion of our medical graduates, as in the past, will ultimately seek England, the public services, and our colonies as the spheres of their future life-work.

I rejoice at being in a position to give an answer to this question which can hardly fail to prove satisfactory. We have modelled our regulations regarding the medical curriculum upon lines somewhat similar to those inaugurated by the University of London, and being an entirely new university, absolutely untrammelled by any vested teaching interests, I respectfully but confidently submit that we have been able in some ways to improve upon the new regulations laid down by that august institution without, we believe, any lowering of the recognised standards of excellence. If we have been delayed till now in the realisation of our aspirations towards achieving university rank, the delay has enabled us from the start of our career to seize on the latest improvements and most advanced developments in medical education, which in recent years have been grafted upon the various and varied curricula of the older universities and long-established corporations in their attempts at keeping pace with the ever-swelling tide of medical knowledge. In the planning of our new curriculum we were most fortunate in having the aid of the supervision of one of the Commissioners of the University in Sir Donald MacAlister, the able President of the General Medical Council, in whose unique personality is combined the rarest business acumen with the most profound knowledge of the requirements of progressive medical education.

Though not presuming to state that my distinguished colleagues who teach the preliminary and intermediate subjects in the Queen's University of Belfast all go so far as to endorse in its entirety every view of the eminent professor in University College whom I have already quoted, I am justified in stating that they have always conscientiously and successfully aimed at directing the studies of the medical student from the point of view of his future serious vocation as far as our intimate connexion with the cumbrous and somewhat obsolete machinery of the now expiring Royal University permitted.

I shall not risk wearying you with minute details of the curriculum of our new university; suffice it to say that within a period of one year, consisting of one winter and one summer session, from matriculation the student can present himself for examination in all the preliminary subjects—experimental physics, chemistry (both theoretical and practical), and botany with zoology (both theoretical and practical). Within 12 months more he can complete his curriculum and examinations in anatomy and physiology, so that, if diligent and of average ability, he finds himself, before entering upon his third winter, completely free from study and from attendance upon all the classes of the preliminary and intermediate subjects, and privileged to give henceforth his undivided attention for a period of three whole years to practical clinical work and attendance upon the lectures devoted to the final subjects, whose practice is to constitute his life-work. By this judicious arrangement of his time and study the new university has thus been enabled to change the usual three years devoted to preliminary education, and the two years into which the clinical study had been squeezed, into two years of preliminary training and three whole years of clinical work. That this result is not obtained by sacrificing any of the time formerly devoted to the teaching of these scientific subjects is evident upon glancing at the calendar, which shows that during the first two years the student is compelled to attend no fewer than 16 separate courses of lectures, each course being of the usual length and consisting of the recognised number of lectures. The standard of excellence is maintained by arranging that the examination in each subject shall be conducted at the termination of each session, that the instruction given shall be in every possible way carried out on practical or experimental lines laid down upon the directed method already mentioned, in which the bearing of principles and facts are presented with due regard to the wants of the student and of the future practitioner of medicine. Whilst there is thus no danger of any lowering of the standard of scientific knowledge required of the student, ample provision is made for the maintenance of his clinical training at a high level by compelling him to avail himself for a minimum period of three years of the almost unrivalled hospital facilities at the command of the new university.

The spirit of thoroughness in which our curriculum has been conceived is further demonstrated by a regulation which prohibits the student's attendance upon lectures on the final subjects until he has passed his examinations in the preliminary subjects.

In conclusion, I trust that this necessarily fragmentary sketch of the origin, development, and progress of the Belfast Medical School under the master minds of its early teachers, whose present successors are determined to uphold its traditions and keep abreast of the tide of advancing knowledge, will carry the conviction to the minds of my auditors that a great and free university has arisen to shower its blessings upon our province, to carry the lamp of learning, and to bear upon its wings the balm of healing to the remotest parts of our colossal empire.

Address in Medicine

ON

PROGRESSIVE MEDICINE AND THE OUTLOOK ON TUBERCULOSIS.

Delivered at the Seventy-seventh Annual Meeting of the British Medical Association

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MR. PRESIDENT AND GENTLEMEN,—It is fitting that the first word this afternoon should be one expressive of my sincere thanks to the Council for the invitation with which they have honoured me to deliver the Address in Medicine at the annual meeting of the Association. In responding to the request I am sensible of the responsibility, no less than the compliment, which is implied. As years go by the choice of a subject does not grow easier. The immensity of the field constitutes an increasing difficulty.

Turning the matter over soon after the invitation reached me, I chanced to pass my old school, left, almost to a day, 35 years ago. It occurred to me that, in place of attempting to project a bird's-eye view of medicine as a whole, it would be well to limit attention to one department which illustrates in striking fashion the extraordinary revolution of thought which has occurred in little more than a generation. In selecting for my theme the outlook of modern medicine on tuberculosis I make no apology for the choice. No subject in medicine has wider interest. No assembly can appraise,

as this great Association can, its significance and magnitude. You know its difficulties and have to face them every day. I am influenced, too, by the fact that the Association meets this year in Ireland, where, thanks to the admirable energy of Her Excellency the Vice Reine and the generous coöperation of the medical profession, a great antituberculosis movement is in progress. Nor can I forget the striking part played by the city of Belfast in times gone by through the remarkable labours and writings of Dr. Henry MacCormac, and in more recent times by those who are yet with us.

RETROSPECTIVE.

To give greater precision, let me divide the 35 years into five lesser periods of seven years each. The first period (1875–81) was one of darkness and fog. The great work of Laennec and Louis was threatened with eclipse. The unity and specificity of the tuberculous process were obscured. Terminology was vague and inexact. Tuberculosis of the lung was labelled catarrhal pneumonia, with three stages of congestion, consolidation, and excavation. A "neglected cold" played a chief causal rôle. The hopelessness of therapeutics was depressing. Here and there appeared glimmering of light. Experimental research on the earlier lines of Villemin presaged the dawn.

The commencement of the second period (1882–88) saw the advent of daylight. Koch's announcement to the Physiologische Gesellschaft of Berlin, on March 24th, 1882, came like sunrise to a sleeping city. The discovery of the tubercle bacillus inaugurated a time of Sturm und Drang—the strife of critics and opposing doctrines. The tremendous significance of the brilliant discovery could not be realised at once. Time was needed for the correction and adjustment of older views. Research had to develop on fresh lines. The character, life-history, properties, and morbific activity of the tubercle bacillus were studied by a host of observers. The conception came gradually—not an absolutely new conception indeed—that tuberculosis, notably pulmonary tuberculosis, must be given a place among infective diseases. The old feeling after truth, which led the Italian and Spaniard almost a century before to pass enactments prescribing preventive measures against tuberculosis, was found to rest on scientific fact. Gradually there emerged indications of a larger outlook towards prevention.

During the third period (1889–95) observation and research were pursued with increasing exactness and better result. The period is remarkable because of two events: (1) the announcement of tuberculin; and (2) the more general adoption of the doctrine of aerotherapy, a doctrine promulgated long ago, but little apprehended or applied. The intimation by Koch in 1890 that he had obtained in tuberculin an agent of specific value in the diagnosis and treatment of tuberculosis was an event only second in importance to the announcement of the bacillus itself. It needed years, however, to enforce the conviction that tuberculin, which was received with mingled criticism and almost hooted from the stage, embodied a principle of the greatest significance to medicine.

The fourth period (1896–1902) saw the more rapid spread of antituberculosis activity throughout the civilised world—the increasing determination of scientific, social, and, to some extent, official effort towards the tuberculosis problem. While experimental research was pursued with keenness, men's minds were awakened to the large issues of preventive medicine. This was the time of more general development of the sanatorium. The tuberculosis dispensary, inaugurated in the "eighties" as a centre of antituberculosis operations, aroused attention. Notification was admitted as a practical measure. Tuberculosis associations were founded in different centres. Conferences and congresses began to be held. The commencement of the twentieth century found the subject pretty much in the air.

The fifth and last period of seven years (1903–09) is remarkable for the development of larger views on immunisation and the appearance of the opsonic doctrine and its application to therapeusis as a means of directing vaccine-therapy. Diagnosis has been made more exact by various adaptations of tuberculin. This is also the period of more rapid evolution of preventive measures. The physician and the sanitarian have joined hands, and have been aided not a little by thoughtful social workers who recognise the vast part played by tuberculosis as an agent of national devitalisation and impoverishment. The nations of the world are falling into line. Repeated international congresses have borne excellent fruit. With exchange of ideas endeavour has become better directed and more uniform. The significance of organisation and coördination of effort is gradually being appreciated. Administrative control is taking practical shape. And so the great work goes on.

PRESENT POSITION AND OUTLOOK.

To-day I invite you to pause for a brief hour and think what the discovery of the tubercle bacillus has meant to medicine and to the world, and what it may mean. Nor deem this a trite or exhausted subject. I hope to succeed in showing that, great as have been the advances already made, still greater are the possibilities which the discovery implies. Consider the matter more closely. The determination of the essential cause has called order out of chaos. It has thrown to the winds the vague, nebulous talk of dualism which long perplexed medical science. Tuberculosis, however various its aspects, is one indivisible entity, dependent essentially on the presence and activity of one organism. Behind the changing pathological and clinical appearances the tubercle bacillus remains single and constant.

[Here Dr. Philip criticised the usually adopted nomenclature and classification of tuberculosis as being too anatomical, and not taking into account systemic manifestations, and continued:]

DIAGNOSIS AND PROGNOSIS.

The discovery of the tubercle bacillus in the patient's expectoration affords bacteriogical proof of tuberculosis. This is incontestable evidence. It is the evidence which we seek for in dead tissues. But from the physician's point of view much more is needed. In the first place, if he wait for the appearance of the tubercle bacillus in the discharge he waits too long. The occurrence of the bacillus in the expectoration signifies a tuberculous invasion which has made considerable advance. The disease has progressed far before it takes the form of a discharging lesion. The physician's duty is to conclude the diagnosis prior to this. Further, the detection of the bacillus in the discharge, or the determination, by one or other of the more recent bacteriological tests, that the patient is tuberculous, yields but a partial diagnosis from the standpoint of prognosis. Unfortunately the present tendency is to say, on the one hand: Given no tubercle bacillus in the discharge, we may not diagnose the condition as tuberculosis; and, again: Given the bacillus in the discharge, the diagnosis is one of tuberculosis, and there's an end of it. But *quâ* prognosis, much more is needed.

In respect of early diagnosis and the completer diagnosis on which are based both prognosis and treatment, the physician has methods of determination beyond those of the laboratory, which can be refined and perfected only by careful, patient, and prolonged study at the bedside. The physician, while making use of all bacteriological advances as aids to diagnosis, cannot afford to forget that there is evidence imprinted on the patient's every tissue and organ which, when read by the seeing eye and interpreted by the trained senses, gives completeness of view otherwise unattainable. The physician is primarily the thoughtful observer of Nature. Familiar with the features of healthy activity as these manifest themselves in every organ, he becomes quick, by repeated observation of disease, to catch the first slight deviations which indicate that the physiological has become the pathological. In illustration, let me cite a simple case.

Some years ago I was asked to see a young lady suffering from pulmonary tuberculosis, who was extremely ill, indeed almost moribund. There was little to be done. In passing downstairs from the sick room I happened to meet a bright girl with whom I exchanged a few words. After expressing an unfavourable opinion regarding the patient, I ventured to ask who the girl was whom I had met on the staircase. To the reply that it was the patient's younger sister, I suggested we should direct treatment to her. The immediate rejoinder was: "But there is nothing wrong with her." I heard no more of her for 20 months, when I was asked to see her on account of pulmonary tuberculosis. The doctor in attendance reminded me of the previous incident and indicated that the girl had "kept well" till a fortnight ago, when cough appeared, and a specimen of expectoration sent to the laboratory revealed the presence of tubercle bacilli. Examination of the patient showed extensive bilateral disease and pronounced systemic disturbance. Months of much moment to the patient had slipped by during which the disease was slowly making way. It was only when the lesion came to be a discharging one that the suggested diagnosis of 20 months before was seriously considered. In spite of speedy adoption of treatment, and a brave fight on the part

of the patient, she died. Had treatment been instituted at the earlier date the unfortunate issue would probably not have occurred. Such incidents are of frequent occurrence.

The extent to which faith is limited to the bacillary diagnosis is serious. I have before me a letter from a bacteriologist who, at the request of a throat specialist, had received a specimen of sputum from a patient in whom, to my knowledge, the diagnosis of pulmonary tuberculosis had been made six years ago, and who had done remarkably well. The writer reports that he found the patient discharging "a very large number of tubercle bacilli, which indicated that it was an advanced and progressive case of phthisis but still not hopeless." It is clear that neither the unfavourable verdict nor the subsequent reassurance, coming from one who had never seen the patient, can be admitted as of much value. What I am anxious to urge is, on the one hand, that the bacteriological diagnosis comes frequently too late, and in any case should not be waited for without an estimate of the results of every other method of examination, and, on the other hand, that the bacteriological diagnosis is much too narrow an issue on which to base prognosis in a given case. While, broadly speaking, the presence of a large number of tubercle bacilli in the discharge points to a considerable focus of disease, the actual number *per se* is not a sufficient gauge of the stage or gravity of the case. To the trained clinical eye there are a score of other points which must be appraised in order that the diagnosis may be of prognostic value.

TUBERCULIN IN DIAGNOSIS.

The subcutaneous injection of tuberculin, as first proposed by Koch, is occasionally of much value. There occur every now and again in the experience of the best clinician cases where the symptoms, physical signs, and clinical course are difficult of interpretation—cases where the possible presence of tuberculous disease means too much to the patient to justify doubt or delay. In such instances the use of tuberculin is clearly indicated. Resting on an opinion formed by a persistent use of the method since its first introduction, I can testify to its value and its freedom from risk. There are also available more recent adaptations of tuberculin diagnosis, which include the cutaneous, percutaneous, and ophthalmic tests. These have a wide range of application. Perhaps the most generally serviceable is the cutaneous. The percutaneous is a simple modification of this, in which the skin remains unbroken. The ophthalmic or conjunctival has similar application where there is no contra-indication because of existing eye disease.

These methods, which are readily carried out, yield convincing evidence as to the presence or absence of tuberculosis in the given *individual*. They do not, of course, afford certain proof—although the presumption may be present—that the *particular symptoms or lesion* under consideration are of tuberculous origin. They justify the diagnosis that the individual has tuberculosis, while they leave the localisation of the lesion to other means. In this sense the cutaneous and ophthalmic tests are commonly less conclusive than the subcutaneous. On the other hand, the former are often preferable. Thus they may be preferred when the point to be determined is the general one, Is the patient tuberculous? They may be preferred—especially the cutaneous—when the hypodermic method might be objected to either by the patient or his friends or when the character of the lesion makes subcutaneous injection undesirable. The external methods—and in most cases the cutaneous—are preferable when an extensive test involving many individuals is undertaken, as in a public institution, for the purpose of determining the amount of tuberculosis present. In respect of all these tests it is unfortunate that, while they commonly indicate with remarkable certainty the existence of a tuberculous lesion, they fail to discriminate, so far as present methods go, between lesions of comparatively old and quiescent character and commencing lesions of aggressive nature. They fail also to detect some of the worst cases, notably disease rapidly advancing towards a fatal termination.

ETIOLOGICAL RELATIONSHIPS OF CHILDHOOD.

From the larger point of view we are much indebted to tuberculin for convincing evidence of the vast frequency of tuberculosis. Of paramount importance is the conclusive testimony it bears as to the frequent occurrence of tuberculosis in children. Its use has confirmed in remarkable fashion estimates, concluded on other clinical grounds, which have sometimes been criticised as excessive. Thus conclusions published by me, which showed that of groups of school children from 6 to 14 years of age no fewer than 30 per cent. presented stigmata of tuberculosis, have been thought extreme. Yet observations by means of the cutaneous test go to show that such conclusions are within the mark. Much evidence is accumulating on the point. In the absence of investigations on a large scale from London or other great city at home I cite recent continental observations. Statistics from the city of Vienna are available which deal with large numbers of children. They include (A) cases examined post mortem, and (B) cases tested with tuberculin. The figures are as follows:—

(A) Post mortem results (Slaka and Hamburger):
Of 848 cases dying from all sorts of causes, 335 were found to be tuberculous, that is, circa 40 per cent.
Arranging them in six groups according to age:

Group I. (1st year of life)	showed	15	per cent.	tuberculous.
,, II. (2nd ,,)	,,	40	,,	,,
,, III. (3rd to 4th year)	,,	60	,,	,,
,, IV. (5th to 6th year)	,,	56	,,	,,
,, V. (7th to 10th year)	,,	63	,,	,,
,, VI. (11th to 14th year)	,,	70	,,	,,

(B) Tuberculin results:
(*a*) Of 988 consecutive patients coming to hospital and tested by cutaneous method (von Pirquet).

Group I. (as above)	showed	16	per cent.	positive.
,, II.	,,	24	,,	,,
,, III.	,,	37	,,	,,
,, IV	,,	37	,,	,,
,, V.	,,	57	,,	,,
,, VI.	,,	68	,,	,,

(*b*) Of 509 consecutive patients in hospital for diphtheria, scarlet fever, and other acute infections (except measles), tested cutaneously, and in case of doubt subcutaneously (Monti and Hamburger), 271 were positive, that is, circa 50 per cent. Or, taking them in groups:

Of Group I. (as above)	undetermined.			
,, II.	,,	9	per cent.	were positive.
,, III.	,,	27	,,	,,
,, IV.	,,	51	,,	,,
,, V.	,,	71	,,	,,
,, VI.	,,	94	,,	,,

It is to be kept in view that the figures quoted are based on investigations among children of the poorer classes, and refer to tuberculous *infection* and not to clinically determinable *illness* merely. For the present we are concerned with the actual distribution of tuberculosis throughout large communities. It is also to be understood that the conditions pertaining in Vienna and correspondingly the incidence of tuberculosis are not strictly comparable with those in our own large towns.

None the less, collective evidence from many sources emphasises the view that it is especially in childhood that the tuberculous seed is sown. Tuberculosis is an all-pervading blight. Its occurrence would seem traceable largely to the nursery, or at least to the period of childhood. The German saying, "Am Ende hat Jedermann ein bischen Tuberkulose," might in the light of modern observation almost read, "Tuberculosis is commonly contracted in childhood." The significance of this can hardly be exaggerated. The frequency of tuberculous infection in childhood explains much which previously gave rise to endless speculation. If we modify slightly the doctrine of heredity which formerly held sway and ally it with that of the survival of the fittest, we shall come near to the truth. Heredity means not transmission of the disease, but of tissues which are extra liable and extra vulnerable. The widespread distribution of the disease and unhealthy environment mean the probability of infection in less or greater degree. The more liable tissue becomes more certainly infected, and the more vulnerable tissue suffers in greater degree. The less liable may escape altogether, and the less vulnerable resist successfully.

If the conclusion which seems forced on us be correct, that in a majority of instances infection occurs in childhood, we are faced with a problem of totally different complexion and proportions from that which was previously conceived. To solve it we must search for causal conditions in the life of the child. It is impossible on the present occasion to condescend on details as to channels of infection. Suffice it to say that prolonged observation has led me to conclude that inoculation may occur by way of the mucous passages at any point from the mouth and nostril downwards. I believe this

is especially frequent in the naso-pharyngeal, tonsillar, and faucial regions. From the point of entrance there is usually a slow dissemination by way of the lymphatic circulation. The factors essential to invasion are devitalisation of the tissues and the presence of the bacillus.

In answer to the query, Where does the bacillus come from? it is natural and tempting to trace infection in childhood chiefly to infected milk-supply. But do the facts bear this out? Tuberculin tests show that tuberculosis is relatively less common during the first two years—when, if milk were the chief agent, we might expect it to be greater—and evidence of infection becomes progressively common as age advances. The facts of comparative ethnology tend also to qualify the view. For tuberculosis flourishes abundantly in not a few countries where feeding with milk from cows or other animals appears unknown. I am assured by numerous competent observers abroad that tuberculosis abounds in districts where the use of milk for alimentation is unknown. The extent to which tuberculosis depends on the ingestion of bacillus-containing milk remains, therefore, a moot point. It seems rather as if some other cause were operative—a cause common to home and school life. The incidence of pulmonary tuberculosis shows a steady increase as the child grows. The ratio of increase is greater about the time the child goes to school. One morbid influence seems constant throughout the progressive stages of the child's life—namely, the comparative withdrawal of the developing organism from the natural and healthful stimulus of the open air. The facts appear to point conclusively to the relatively airless conditions of home and school life as a chief etiological factor. This view is corroborated by observations made under the system of domiciliary visitation which forms a leading feature in the activity of the Victoria Dispensary for Consumption. Under the system the home of every patient coming to the dispensary is systematically inspected by nurse and doctor. In addition to inspecting the house the doctor holds a "march past" of the household, so that other cases of infection may be detected as early as possible. The frequency with which several members of a household—it may be half a dozen children—are found to be concurrently affected is striking. There is a remarkable coincidence between the airlessness of the house and the frequency of disease. Sometimes every member of the family presents stigmata of the disease. Such homes are veritable "nests" of tuberculosis.

In this connexion I venture the suggestion that it is to the extensive distribution of tuberculosis in childhood that we must trace the frequency of the graver symptoms and complications which occur in such infections as measles and whooping-cough. The more carefully we have regard to complete diagnosis, the more frequently will it be found that tuberculosis lurks behind the more acute illness. It is often stated that pulmonary tuberculosis occurs as a *sequela* of measles and other infections. Are there not grounds rather for believing that such infections tend to assume the graver character because of *pre-existing* tuberculosis? Do not such infections frequently arouse into activity a pre-existing tuberculosis? Tuberculosis is, I believe, to be credited with a much greater proportion of mortality in childhood than is usually conceived, and is largely responsible for the aggravated manifestations of otherwise simple ailments.

TUBERCULOSIS IN COMMUNITIES.

Turning to the occurrence of tuberculosis in the community generally, I may recall calculations made a number of years ago as to the ratio between mortality and incidence of pulmonary tuberculosis. These led me to the conclusion that the mortality within a district might safely be multiplied by ten to express the number of cases of pulmonary tuberculosis worthy of medical surveillance, and I suggested that this number might be further increased without exaggeration. Subsequent observations have confirmed the belief that the estimate, far from being excessive, errs probably on the low side. The results obtained by means of the newer methods of diagnosis are strongly corroborative. If we reckon not merely patients who are so evidently ill as to require medical supervision, but the entire number of persons who give a positive reaction to tuberculin, the sum total is vastly greater. Such facts have a very practical bearing on prevention and treatment. They testify to the tremendous grip which tuberculosis has obtained on the race and its immense ramifications throughout the social organisation. They emphasise the significance of measures directed to the better sanitation of dwellings and schools as well as workshops, offices, &c. They illuminate and illustrate the housing question—using the phrase in the widest sense—as nothing else could do. No less do they accentuate the great need which exists for an organised and coördinated plan of operations in relation to tuberculosis as it occurs in our social communities. With so great a mass of tuberculous material to handle we cannot afford merely to wait and treat individual patients as they happen to present themselves at out-patient departments. We must search for them in their hiding-places. We must track them to their breeding-grounds.

Towards this end *concerted action* is desirable. We must obtain all available information as to the distribution and spread of the disease with a view to its prevention and eradication. This is the justification of notification. Much more is needed. Approaching the matter from the standpoint of the pathologist, I was led some 22 years ago to propose the establishment of the Consumption Dispensary as a central institution which should concern itself with every aspect of the tuberculosis problem, and would have regard especially to the patient's home conditions in relation to his own treatment and the limitation of the spread of the disease throughout the household. By the continuous activities of the tuberculosis dispensary and the system of domiciliary visitation to which I have alluded, there is maintained a ceaseless campaign and successful raid on the disease. If properly worked, there will be accumulated a remarkable mass of information regarding tuberculosis in the given district. Thus, in Edinburgh, the activities of the Consumption Dispensary have tended to the completion of a satisfactory plan of antituberculosis operations, which includes compulsory notification, a sanatorium for early cases with approximately 100 beds, a working colony, a hospital for advanced and dying cases with 62 beds, in addition to suitable and extensive accommodation for patients of the pauper class under the Poor-law authorities. The several factors in the scheme are on terms of intimate relationship and coöperation. The scheme is closely related to the municipality through the medical officer of health, and by many links to the Charity Organisation Society and other such agencies. As illustration of the significance to the community of such concerted action, it is noteworthy that while during the first ten years of the development of the scheme, when its activities were more restricted, the mortality from pulmonary tuberculosis in Edinburgh fell 12·8 per cent., in the succeeding ten years (1897–1906) the mortality further fell to the extent of 42·1 per cent. Without tracing this remarkable drop entirely to the activities of the system it seems fair to interpret these as chiefly contributory to the result.

The further goal towards which all effort is directed is the recognition by the State and the various administrative bodies concerned that tuberculosis is a social evil, the existence and effects of which call for consideration and active interference. The change which has come over the official attitude of the country is eminently satisfactory. So far as England is concerned, the most significant indication is found in the fact that last year there was issued by the Local Government Board an order calling for the notification of all cases of pulmonary tuberculosis occurring in patients under the Poor-law. In Scotland an advanced position was taken some years ago. In a Memorandum dated March 10th, 1906, pulmonary phthisis was declared by the Local Government Board of that country to be an infective disease within the meaning of the Public Health Act and the various elements in what may be described as the Edinburgh scheme were recommended as collectively forming the basis of a national scheme of antituberculosis measures. Ireland, thanks largely to the attitude adopted by her Local Government Board, is in possession of a Tuberculosis Prevention Act, which became effective on the first of the present month, and which gives her potentially the entire machinery for a complete and effectual campaign. These are striking indications of ripening opinion. Taken along with the wider public health enactments which have been a conspicuous feature of recent legislation, they afford a gratifying promise for the future.

THERAPEUTICS

Let me invite you to consider briefly two aspects of treatment. The first of these has no direct relationship with the tubercle bacillus—namely, aerotherapy. The second

depends essentially on the bacillus—is, indeed, the outcome of our growing acquaintance with that and other organisms. I refer to tuberculin and vaccine-therapy.

The Great Principle of Aerotherapy.

Although, as the cynic may remind me, the great principle of aerotherapy dates from the Garden of Eden, somehow as time went on the principle ceased to be followed save by a few. The experience of the past two decades has greatly influenced the medical attitude towards aerotherapy. Its methods have gained an assured place in therapeutics. We have come to recognise from a comparative study of pulmonary tuberculosis as it occurs throughout the world that it is not a disease of any one latitude or climate. The fallacy which in the popular, and perhaps also in the medical, mind associated consumption particularly with these islands has been exposed. The relative infrequency of consumption in England and Scotland as contrasted with other European countries has not only contributed to dissipate ignorance as to its etiology, but tended actually to a reversal of the conception that climatic conditions have to do with its production. The pioneer work of the earlier sanatoriums in this country led rapidly and certainly to the conclusion that open-air treatment was a method of universal application. Facts and statistics have speedily accumulated which go to show that tuberculosis results chiefly from the exclusion or insufficient supply of fresh air in the dwelling-room, workroom, and other haunts of man, and, further, that in proportion as the supply of air and sunlight is improved, under better conditions of sanitation, there follows a corresponding reduction in the mortality from tuberculosis. Not only this, but there is abundant evidence that open-air treatment is successful in proportion as it is carried out completely, in winter no less than in summer. Indeed, there is not wanting support for the belief that the results obtained under open-air treatment are fully better during the colder than the warmer months of the year. Nor is it too much to contend that the application of aerotherapy has completely changed the clinical features of pulmonary tuberculosis. Under proper aerotherapeutic conditions the classic type of disease, as described from generation to generation in the past, has ceased to be. The aspect of the patient is metamorphosed. The delicate pink-and-white colouring or the hectic blush usually described is frequently replaced by a ruddy look. Pyrexia disappears marvellously. Within a short time temperatures which have been swinging for weeks tend to become normal. The rapid pulse is slowed and blood pressure increased. Night sweating is practically unknown. Cough quickly lessens or disappears and expectoration is correspondingly reduced. Appetite picks up and digestive disabilities disappear. Lassitude and disinclination for effort, physical and mental, pass away, and the patient becomes once more keen and fit for neuro-muscular expenditure. His entire physiology returns to a higher plane. The classic description of the consumptive, read alongside of patients under treatment on aerotherapeutic lines, sounds exaggerated and false. The brilliant results achieved under aerotherapy in the arrest of what seemed hopeless conditions of disease afford encouragement for the wider adoption of open-air measures with a view to prevention. It is remarkable how far prevention lags behind treatment. What is capable of effecting the cure of definite tuberculosis is *a fortiori* capable of preventing its appearance. We admit this in theory, but the practical application is half-hearted and faltering. This is the more remarkable because we have a constant object-lesson in the relatively low place which England and Scotland occupy in relation to tuberculosis mortality as compared with other nations. There is little doubt that this finds its explanation in chief part in the habits of our people, their love of outdoor sports and the like, and in the continuous and steady amelioration of housing conditions from successive enactments which have been passed during three-quarters of a century. The history of medicine abundantly shows that where therapeutic procedure is based on physiology the methods of application are simple and direct. This is conspicuously true of aerotherapy. The accumulated experience of recent years has established three general propositions of much significance.

1. Aerotherapy is a measure of universal applicability in all lands. There is no climate specially favourable for its practice. The advantage of brighter, warmer climates lies chiefly in the greater facility and comfort with which it may be carried out. Open-air treatment seems more natural when the sun is shining. On the other hand, in warmer climates there are inherent difficulties to the carrying out of the system all the year round. It may be doubted whether any climate, taken as a whole, is more suitable for the purpose than that of the United Kingdom.

2. Aerotherapy is of universal applicability in every sick room. It is not a special system to be practised in special institutions. It is utilisable in the bedroom of the ordinary dwelling as certainly as it is in the ward of a special hospital. Although more conveniently carried out in the sanatorium, it may be used no less completely and effectively in the ordinary dwelling house if only the principle of application be rightly apprehended. There is no need to send patients to sanatoriums *merely* on this account. Sanatoriums have their uses. They are serviceable, especially in the interest of patients who, for one reason or another, cannot have a proper *régime* maintained in their own home. But even the poorest—and still more easily the well-off patient—can enjoy the advantages of aerotherapy at home. This is a significent admission because it carries with it the further important conclusion that a sanatorium does not require, in order to be effective, to be erected in an inaccessible place, removed, it may be, a hundred miles from the centre of population which it especially serves. Many mistakes have been made in regard to this in the past. Much unnecessary expenditure and inconvenience have been caused. If a sanatorium is established for the poorer classes of a town it is eminently desirable that, while it should be removed to a sufficient distance to protect it from smoke and dust, it should still be sufficiently under the eye of the citizens to constitute from day to day an object-lesson in the application of aerotherapy.

3. Aerotherapy, while especially indicated in tuberculosis, is a measure of widest applicability in relation to disease. It is a mighty principle of treatment both from the curative and from the preventive point of view. I have already alluded to the remarkable change in type which occurs in pulmonary tuberculosis when treated on open-air principles. No less striking is the absence of complications as compared with their frequency under the protective method. Throughout 15 years of constant experience of aerotherapy in the Royal Victoria Hospital for Consumption I have watched closely for the occurrence of pneumonia, or pleurisy, or bronchitis, and have failed to meet them. Their absence from a considerable community, all of whom have already weakened lungs, is singular and merits reflection. Further, there has never been an outbreak of epidemic disease, and it is the rarest occurrence to have a member of the staff off duty even for a day. It would seem, indeed, that the application of aerotherapy is without limits, provided reasonable care be taken to preserve the warmth of the body. We are only awakening to the full significance of this great cleansing, antidotal, and vitalising principle whose applicability in medicine is no less far-reaching than that of asepsis in surgery. It was a far-seeing, clear-visioned poet who wrote—

> "Air, air, fresh life-blood, thin and searching air,
> The clear, dear breath of God that loveth us.
> * * * *
> Water is beautiful, but not like air."

The progress of surgery within recent times is sometimes contrasted with that of medicine to the disadvantage of the latter. It is worthy of note that the remarkable developments of modern surgery are the result of the application of one or two great principles which may be described as medical rather than surgical. The two principles which have revolutionised surgery—namely, anæsthesia and asepsis—have allowed the surgeon to proceed fearlessly, leisurely, and without risk of interruption or complication to the completion of operations which otherwise were impossible. In like manner, it seems to me, the adoption of aerotherapy as a basis of treatment brings the physician to a vantage ground in respect of therapeutic possibilities from which he is debarred under the more protective system. Let me urge that to place a patient suffering from pulmonary tuberculosis under the influence of aerotherapy is not synonymous with the adoption of expectant treatment. Aerotherapy is, in the truest sense, a therapeutic measure which has been found capable of giving the best results.

[Here Dr. Philip recalled the remarkably prophetic words of Henry MacCormac with regard to aerotherapy and congratulated Belfast upon having been the home of so eloquent and accurate a pioneer.]

Tuberculin and Vaccine-therapy.

The quest after a specific remedy for tuberculosis has been long and disappointing. Until the discovery of the tubercle bacillus the quest was in the dark. The best attempts were but random shots inspired by the hope that in some lucky moment the materia medica might reveal a drug to which tuberculosis would respond, as syphilis does to mercury and iodide of potassium. Among the legion of vaunted remedies none can be credited with much beyond symptomatic value. The recognition of the tubercle bacillus gave fresh impulse to research, and afforded occasion to determine on scientific lines the activity of bactericidal agents against the bacillus both *in vitro* and in the living tissues. Once more—notwithstanding recurrent claims to the contrary—the net result has been discouraging. No bactericidal agent, in the ordinary sense of the word, has yet proved effective in dealing the death-blow to the bacillus which is not at the same time harmful to the living tissues of the human organism.

A more satisfactory picture presents itself when we turn to tuberculin. The discovery of tuberculin in 1890 meant an entirely new conception of treatment in tuberculosis. At first tuberculin obtained but a precarious foothold in medical practice. On the reasons for this I shall not enter. During the years which have elapsed it has been continuously used by me as a therapeutic agent. There has been ample time for experiment, observation, and reflection. These have been not less satisfactory because of the reserve and even distrust with which the agent was commonly treated. Necessarily mistakes occurred, and conceptions and methods have shifted from time to time. Looking back, it is gratifying to have the opportunity to state that throughout the period there has grown and remained with me the conviction, which is ever ripening, that in tuberculin we have a remedy of first importance in the treatment of tuberculosis. The cases treated have been very numerous and of varying kinds and types. The net result is a decisive verdict in favour of tuberculin. The excessive dosage and too frequent exhibition of tuberculin of the first few years have been modified. The value of smaller doses, repeated at intervals, has been recognised. Gradually the cruder conception of its mode of activity has merged into that of vaccine-therapy.

On the principle of vaccine-therapy I may not dwell. Suffice it to remind you that its aim is the production of immunity by stimulation of the natural protective mechanism. Vaccine-therapy seeks to activate the leucocyte and the bacteriotropic elements of the blood. It is admittedly difficult to immunise a healthy animal against tuberculosis. More difficult still is the attempt to immunise an animal already affected. After all has been said and done, a complete immunity from tuberculosis seems a good way off. By the exhibition of tuberculin, we introduce an agent closely related to the infecting organism in the hope that we may thereby reinforce Nature's own effort at immunisation. But we are working in the twilight. The exact effect of varying doses of tuberculin on the subject infected with tuberculosis is obscure. We are even hazy as to what we wish to effect. What is meant by a so-called reaction—using the term in its widest sense? Is it something to be desired? How are we to direct and limit reaction? What are its bearings on immunisation? It may be affirmed with reasonable certainty that pronounced reactions, both general and local, are to be avoided. On the other hand, it will be the conclusion of most observers that a mild reaction, local and general, is associated with progressive changes which make for improvement. A chief aim of clinical investigation should be the determination of the degree and limits of this serviceable effect. How are we best to attain satisfactory results? How are we to determine for different cases and occasions the optimum dose, and so exclude harmful effects which result from excessive dosage? Needless to say, both care and experience are required. It seems to me that, as physicians in immediate relation to the patient, we have methods of gauging from day to day the result of tuberculin treatment similar to, if not yet as certain as, those by which we gauge the effect and value of digitalis or other of the more potent drugs of the Pharmacopœia.

One of the more striking results of well-regulated dosage with tuberculin is the modification of symptoms indicative of systemic intoxication. From the first injection onwards, where dosage has been successfully determined, there is commonly reported by the patient a sense of improvement and even well-being, with a corresponding limitation of constitutional symptoms. The patient loses the feeling of tiredness. Other symptoms lessen. The local effect of tuberculin on tuberculous tissues is no less striking. Every one who has seen the change effected by tuberculin on a local lesion—for example, a gland, preferably a discharging one, or a superficial tuberculosis of mucous membrane or skin, must realise its remarkable influence. The hyperæmia induced in and around the tuberculous focus is conspicuous, and must have something to say in respect of the curative process. Similar evidence is available in relation to pulmonary tuberculosis. With improper regulation of dosage or with want of care, the effects may be less happy. On the one hand, constitutional symptoms may be accentuated, as evidenced by the patient's sensations (anorexia, malaise, headache, &c.), colour, pulse, and temperature. On the other hand, local aggravation may be registered by changes determinable, when superficial, by eye and hand, or, when more deeply situated—for example, in lungs, by physical examination. Such changes are definite, and recognisable by the experienced clinician as clearly as are changes in relation to other groups of medical disease.

Speaking as a clinician, with prolonged experience in the use of tuberculin, may I say that I am unable to acquiesce in the proposal to replace thorough clinical observation by reference to one set of phenomena—namely, those of the blood? The latter afford contributory evidence, but they do not seem to me to constitute the case, in the legal sense. While no one can fail to be impressed by the extreme value and beauty of the line of research, we have still much to learn as to the actual relationship between the opsonic index and the production of immunisation. It may yet be ascertained that the changes registrable in the blood afford a satisfactory index of the progress of other changes essential to immunisation. Meantime I do not feel that, so far as tuberculosis is concerned, this has been attained. This is especially true of pulmonary tuberculosis, with regard to which there is available evidence, both systemic and local, which appears of greater range and reliability than that offered by opsonic determination. The opinion is not an *a priori* one. It is advanced after careful comparison of results obtained in a large series of cases. In some of these, treatment was regulated by estimate of the systemic and local evidence. In others, it was regulated by determination of the opsonic index. No trouble was spared to make the determination in both sets of cases as exact as possible. Throughout the series I have not found that the balance was anyways in favour of the latter. It has seemed to me that the opsonic curve may sometimes suggest that the patient is not doing well, while other clinical evidence affords convincing proof to the contrary. Conversely, opsonic readings may appear to indicate satisfactory progress when on other clinical grounds we have to conclude that the progress is downwards.

I refrain purposely from dwelling on the technical difficulties inherent to opsonic determination which meantime place the method outside the usual possibilities of the general practitioner. Such objection, great as it is, would not be sufficient to exclude a method if proved of incomparable value as a means of scientific treatment. I have already given expression to a caveat in respect of the attempt to conclude an *in absentiâ* diagnosis and prognosis in such a condition as pulmonary tuberculosis from examination of the expectoration. Need I suggest that the proposal, which is sometimes seriously made, to treat a patient who has never been seen on similarly limited evidence is extremely dubious? In the use of tuberculin success will not only depend on the accuracy and experience of the physician, but very largely on the patient's immunisation potential. This varies with the individual and the stage of the process—that is, whether the tuberculous lesion is local merely or systemic. The significance of the classification of pulmonary tuberculosis, to which I have already referred, is once more illustrated. It may be stated broadly that in proportion as the disease is localised and presents little systemic involvement (in other words, in proportion as L is greater than S), the hope of successful treatment by vaccine-therapy is enhanced. Tuberculin has remarkable influence in defining

and delimiting tuberculous disease. Its influence is conspicuously conservative. To take examples, I may cite tuberculosis of glands, bones, and joints. Here the effect of tuberculin is conspicuous. Treatment by tuberculin is advantageously combined with surgical interference. Tuberculosis of skin and mucous membrane is likewise readily cured. Tuberculous enteritis is favourably affected. The results in genito-urinary tuberculosis have been remarkably encouraging. In pulmonary tuberculosis much depends on the stage and character of the lesion. In the majority of early cases the result is satisfactory. In proportion to the advance of disease and the presence of systemic intoxication the possibility of cure becomes restricted. The reason for this is two-fold—on the one hand anatomical, and on the other physiological.

Anatomically the process of arrest in tuberculosis is associated with cicatrisation. If arrest is to be effective and permanent cicatrisation must be complete. This implies in the case of pulmonary tuberculosis corresponding shrinkage of the superficial structures forming the chest wall. In slighter cases the necessary shrinkage of the thoracic wall is readily attained. According as the disintegrative process in the lung extends more widely, with production of vomicæ, the chances of shrinkage of the thoracic wall proportionate to the requisite contraction and cicatrisation of lung tissue are progressively lessened. Inevitably there comes a time when intrathoracic disintegration is in excess of possible shrinkage from without. In such a case pulmonary cicatrisation will remain incomplete. It is impossible for the ulcerative surfaces to close. Such considerations explain why treatment of a patient with slight apical change is comparatively simple and satisfactory, and why, contrariwise, in other cases it may be impossible on purely local grounds to attain an effective cure. Hence doubtless, in a young subject, whose chest wall gives freely, treatment is commonly more successful than in the adult patient with fixed, rigid thorax. From the same cause, probably, it results that pulmonary tuberculosis in the young child so often heals spontaneously. In this sense there may be traced an analogy between the results obtainable in pulmonary tuberculosis and in empyema. In both conditions the important factor which renders the child's recovery more easy than the adult's is the relatively yielding condition of the thoracic wall.

From the physiological side the limitations to tuberculin may be stated thus: So long as the local process is the main feature—that is, so long as systemic disturbance remains relatively slight—we may anticipate benefit from treatment by tuberculin. On the other hand, with advancing intoxication there comes a time when the introduction of tuberculin ceases to have value or when the introduction of tuberculin may do positive harm. Where the system is already soaked with tuberculous toxins the addition of tuberculin will probably make matters worse. The possibility of activation of leucocytes and bacteriotropic elements no longer exists. The limits of activation have been passed. While this is so, the curious and interesting observation is sometimes made that, even when recovery seems no longer likely, tuberculin may yet exert important symptomatic influence. Thus I have frequently seen asthmatic manifestations strikingly relieved. The same thing may occur in relation to cough and even hæmoptysis. The explanation of this is not quite evident, and cases vary much. It is yet a point of therapeutic value worth remembering. In much of this we are still groping a way through an intricate maze. If the quest be difficult, the fascination is great, and the reward is fair. Amid the perplexities of the road, the worker of to-day holds a thread in his hand which was denied to the generations that have gone. It is significant that this great Association, representative of medicine in the land of Edward Jenner, should have this year constituted a separate section for deliberation in the department of vaccine-therapy. If it seem hazardous to increase the subdivisions of medicine on such occasions, we shall most of us be agreed that it was a happy inspiration which led the Council to make the present experiment, and no less befitting that the trial should be inaugurated under the direction of one who, along with his fellow-workers and pupils, has so conspicuously illuminated the subject.

THE LARGER PROSPECT.

Time forbids further digression. What of the larger future? May we look forward with confidence to the time when tuberculosis shall cease to be? I think we may. Everything points to its early and final disappearance. This should not be impossible of achievement within a generation or two among the nations which regard the public health as an integral part of civilisation. Is not tuberculosis chiefly the expression of partial, ill-informed civilisation? It was introduced by ignorant, unthinking mankind, and mankind, educated and thinking, can expel it. The ravages of tuberculosis constitute a blot on our civilisation. It is time that we inaugurate a policy commensurate with the evil and worthy of the age. It is time that we grasp the larger conception of tuberculosis as not merely the cause of an overwhelming mortality and infinite distress, physical and economic, but also a great devitaliser of the race, indirectly responsible for an incalculable amount of other disease. So soon as that is realised, and also that the agencies which condition its occurrence are as certainly removable as those which led to typhus, we shall act effectually. Never were the causes of a disease so definitely ascertained. What is chiefly needed is the awakening of the educated intelligence of the nation and the belief that the end is attainable. When that has been achieved the offices of the doctor will be placed on a higher plane. Instead of being asked merely to tinker up diseased frames he will be recognised as a nurseryman in the Garden of Health. Is it too optimistic to anticipate the time when the physician shall have restored to him his proper *métier* of physical "educator"—in the largest sense—and guardian of the national health?

Address in Surgery

ON

PROGRESS IN INTESTINAL SURGERY.

Delivered at the Seventy-seventh Annual Meeting of the British Medical Association,

BY ARTHUR E. BARKER, F.R.C.S. ENG.,

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MR. PRESIDENT AND GENTLEMEN,—My first and pleasantest duty in appearing here to-day is to express my cordial acknowledgments to the Executive of the British Medical Association for the very great honour they have conferred on me in asking me to deliver the Address in Surgery at this meeting before so distinguished an audience. The pleasure is particularly great because the invitation brings me once again to the land of my birth and to a province in which I spent the happiest days of my boyhood. It is something to have even lived not far from Belfast during the period in which she has demonstrated more than at any other time in her history her claim to be considered one of the most progressive cities in our great Empire.

Reminiscence begets reminiscence, and one is led in looking back over a very stirring era and in a great centre of progress to consider what advance has been achieved in our own science and art during that time. In doing so one is almost bewildered by the multiplicity and magnitude of the strides which have been made in surgery in the present generation. Under the inspiring leadership of Lister conquest has followed conquest until it may be said that there is hardly a region or organ of the body which has not been brought under the beneficent rule of recent surgery. To attempt a review of these achievements within the las 25 years would be a task too great for the present occasion. But if I venture to ask you to recall what has been harvested in one field of surgery, which to many of us in our earlier professional days appeared particularly unlikely to yield fruit, and if I endeavour to trace in broad outline the evolution of those ideas which underlie some of the progressive work which has been done in the surgery of the intestines, it may be profitable and encouraging to fresh effort. For it must be abundantly clear to any seriously reflecting mind that what has been so far achieved is almost as nothing to what remains to be done.

Within the memory of many present to-day any transperitoneal interference surgically with the intestinal canal

was regarded as one of the most dangerous undertakings possible. Nowadays, although we look upon all intestinal work as demanding the greatest pathological knowledge, technical skill, and judgment, we know that it can claim an ever-increasing measure of success. One of the first reasons for this progress lies in the fact that we have now ever clearer conceptions of the functions of the peritoneum. When the abdominal cavity first became accessible to surgical interference our conceptions of it were dominated by the idea that its lining was one of the most vulnerable points in the whole body. But soon after came the gradual recognition of the wonderful powers of repair possessed by the membrane when unsoiled by septic matter. Perhaps no one did more to demonstrate this even before our era than the father of abdominal surgery, Spencer Wells. And we must not forget that this was in spite of the fact that much of his work was done before the acceptance of the Listerian *régime*. With the advent of the antiseptic era and the general improvements in results achieved, the conviction was forced upon the surgical mind that many of the successful cases of abdominal section which had recovered anterior to it could not have been performed under anything approaching ideal aseptic conditions. In other words, it seemed clear that if (as was almost positively the case in many of the earlier operations) a certain amount of infective matter must have been left behind in the abdomen after procedures where recovery followed, the peritoneal cavity surely possessed some, then unknown, power of tolerating a certain amount of septic material for a time and ultimately removing it completely. This conviction was strengthened more and more as the pathology of so-called appendicitis (to mention no other lesion) began during the same period to be better understood, and its clinical history to be more closely followed with and without operation. With the knowledge that this disease was an infective peritonitis starting from the vermiform appendix, it became abundantly clear that unless the peritoneum possessed the power of disposing in some way of very considerable quantities of septic matter no case of *acute* appendicitis could possibly recover. And yet it soon became obvious that many such cases did get well without any operation even after severe peritonitis. Moreover, this led to much greater hopefulness about all surgical interference within the abdomen, whether for accident or disease. And the conviction henceforth gained strength that in the peritoneum we possess a powerful ally, always ranging itself upon our side instead of a foe. These facts gradually aroused doubts as to whether the free use of chemical germicides so beneficial elsewhere was, within the abdomen, really sound practice when it was seen that the peritoneum alone could dispose of infective material and when it was discovered that these germicides could exert noxious influences upon the inherent reparative powers of the membrane.

By degrees bacteriology and biology have furnished us with explanations of the facts observed in clinical study, and we have come to know something more definite about the defensive powers of the serous cavities. We know now pretty conclusively that these defensive agencies are not at an end when the membrane has thrown out a certain amount of plastic lymph for the repair of a lesion or the shutting off of an infected area. We believe that this is not its only function, but that under irritation it pours out an abundant effusion of fluid, diluting any toxins present, and that this fluid, like healthy serum, has besides an inherent property of inhibiting or destroying bacterial growth to a certain extent, limited of course, but marvellous as far as it goes. The observation that the peritoneum was able under proper stimuli to rapidly furnish lymph of the very best quality for the repair of damage was a very old one. But the view that the fluid poured out into the abdomen under traumatic or bacterial irritation was in the first place a diluent of any toxins present, and in the next inhibitory or destructive to organisms, has only come to us recently in the evolution of biological knowledge.

Its development has gone hand in hand with the study of phagocytosis, and cytolysis, and of antibodies and opsonins in the blood and fresh serum. And I cannot help feeling that these studies have not as yet sufficiently influenced our practice in dealing with the peritoneum. Immense industry and brilliant research have led very far and have furnished us besides with antitoxins and vaccines for a number of infections. But, speaking with the most profound respect and gratitude for these discoveries, I sometimes venture to think that attention has been more or less diverted by them for the moment from the marvellous powers of the body itself of producing antibodies *in situ* when called upon. For instance, where infection of the peritoneum is obvious, some of us are perhaps nowadays too ready to turn to manufactured antitoxins and to overlook the fact that before they were discovered countless cases had been saved by some germ-destroying mechanism inherent in the serous cavities themselves, probably in the serum and cells effused into them during inflammation. After all, the practice of increasing the amount of blood and serum in a damaged part by means of poultices, fomentations, and other so-called rubefacients is of great antiquity, and has been universally sanctioned as a means of combating destructive inflammation. But the biological mechanism, so to speak, by which hyperæmia operates in arresting septic processes has only recently received close study, as I have said. At all events, we are not so much afraid now as formerly of hyperæmia and effusion into serous and other cavities within certain limits. Indeed, under the influence of Bier's views on hyperæmia the premeditated increase of blood-flow and effusion of serum in infected areas has once more come to be emphasised as a regular practice with the very best results, as, for instance, in infective synovitis of joints and tendon sheaths. Here it has been proved over and over again that joint cavities swarming with certain bacteria beforehand are sterile after the hyperæmia treatment with rubber bandages or suction glasses has been properly carried out at intervals for a few days. That inflammatory effusions into the peritoneal cavity under septic irritation are also, up to a certain point, beneficial seems now certain. And this view explains why it is that we now very often obtain so much better results in abdominal surgery without drainage in cases where a few years ago it was considered indispensable and carried out very elaborately.

It is, of course, necessary to be very cautious in applying these theories to our practice in the surgery of the intestines, but we have, I believe, already received much valuable help from them just in this particular field. We have learnt to be more rigorous in our precautions for warding off sepsis from without during operation, more careful to guard the serous surfaces from all rough treatment during manipulation, and from chemical or physical irritation while exposed, and, on the other hand, more hopeful and bolder in cases where it is already obviously present within the abdomen. Let me illustrate this now by a case. About a year ago I was asked by my colleague, Sir Thomas Barlow, to operate on a boy aged 14 years who had been ill for some weeks with peritonitis, which had ultimately culminated in a localised swelling in the left iliac fossa, probably tuberculous in origin, and already softening into an abscess. With considerable misgiving, knowing from experience the softened condition of tuberculous intestines around a breaking-down mass, I operated. A foul, stinking collection of pus was found in the midst of adherent coils of small intestine thoroughly rotten. An attempt to separate them only resulted, as I had feared, in their crumbling down in several places. It was necessary to resect completely a considerable length of this small intestine ragged with holes and to join sound bowel end to end above and below the damaged portion, all of which was removed. Now all this was done without antiseptics in the presence of foul pus which we could not pretend to have completely evacuated and wiped away during and at the end of the operation. Notwithstanding, I thought it better to close the parietal incision without drainage, even at the risk of the effusion re-forming and pointing through the closed wound. This it did to a small extent after some days, but the discharge soon ceased, the wound healed soundly, and the boy made a complete recovery, being fat and ruddy and without any intestinal trouble when he returned for examination some months later. Not so long ago such a condition as was found here would, I confess, have seemed, at all events to me, hopeless, and would have been treated by simply drawing out the ragged, perforated bowel and making an artificial anus in it, with the usual bad result. But the boldest course proved the best, in spite of the septic condition encountered. It may be asked, Would it not have been better to put in a gauze drain down to the line of junction in the intestine? Possibly it might

have been for a day or so, but I thought not at the time, and am of the same opinion still. The presence of effused serum after such an operation is not injurious within certain limits, and it is not necessary to drain it off in every instance. This requires judgment, and each case must be treated on its own merits.

I may be pardoned for alluding to two other cases bearing on the same point. As they have both been recorded, a brief notice will suffice. The first was that of a woman, aged 76 years, admitted into University College Hospital in a very serious condition, due to an internal strangulation of several feet of intestine by a band, with gangrene of some feet of it. On opening the abdomen, a couple of pints of very foul, dark, greenish-brown fluid escaped, and black dead coils of intestine followed. I found it necessary to resect 5½ feet of bowel to reach sound gut. No antiseptics and very limited mopping were used, and the edges of the wound, which had been soaked in the foul effusion throughout the operation, were united without drainage after being simply wiped dry. Primary union, not showing a single flaw, was the result, and I saw the patient two years afterwards, at the age of 78 years, quite well and hearty. She was an Ulster woman, which may, of course, have accounted for her vitality. The second case was like it in almost every respect. It was that of a lady, aged 49 years, to whom I was hurriedly called out of London 18 months ago. Here, too, there was a disastrous sudden internal strangulation by band of about 20 hours duration. The patient was cyanosed and pulseless at the wrist. When the abdomen was opened about 1½ pints of stinking, greenish-brown fluid gushed out, and a mass of black foul intestine was found to be hopelessly strangled. It was necessary to resect 4 feet 9 inches of bowel and make a side-to-side anastomosis. Here, too, the parietal wound was completely closed without drainage or the use of any chemical germicides, and was healed in ten days with only one slightly moist stitch. Recovery, in short, was perfect and permanent, as I have since heard.

In neither of these two cases could there be any pretence that the abdominal cavity was left quite clean by simple mopping at the end of the operation. But in both the peritoneum was manifestly able to deal with what septic matter remained behind after the removal of the gangrenous intestine and the bulk of the effused fluid. The most reasonable interpretation of the results appears to me to be that the effused fluid was, in the first place, inhibitory to the free growth of organisms, and in the second a diluent of the toxins of those present, enabling them to be excreted without harm to the system generally and to the kidneys in particular. I feel confident that without a belief in the newer views as to the powers of the tissues to deal with considerable quantities of certain septic matters I, at least, would have regarded these three cases as hopeless and would have abandoned them when I saw the state of things within the abdomen. Other cases similar to them might also be cited if time permitted. Moreover, I feel sure that any prolonged attempts to render the abdominal cavity more ideally clean either by flushing by antiseptics or sponging out—such as would have been made a few years ago—would have been not only futile here, but injurious to the defensive works of the peritoneum. In these cases we were dealing with intra-abdominal conditions undoubtedly contaminated. It was our business to restore the continuity of the obstructed and damaged bowel, and by every conceivable precaution of asepsis to prevent any superadded infection from without. This we did and evacuated the bulk of the foul matter. With what remained the peritoneum was able to deal, and did so rapidly.

We are here thrown back upon the faith of our fathers in the *vis medicatrix Naturæ*—a power intangible, beneficent, all-pervading, claiming our faith, arousing our hope, but baffling our analysis hitherto beyond a certain point. Yes, we have changed our conceptions of the protective and reparative functions of the serous membranes very much indeed within the past few years, and, as a rule, to the advantage of our patients. We recognise and understand their protective purposes more fully, and are careful to foster and not to impede them. Who would have believed a decade or two ago that the brain and cord may be bathed in virulent septic fluid for days, and yet recover all their delicate mechanism once more, aided by manufactured antitoxins introduced from without? And none have demonstrated this fact more satisfactorily than the physicians of Belfast in your terrible epidemic of cerebro-spinal meningitis. Again, the fact established by numerous observers now that this same disease in its severe forms may be recovered from under simple repeated tappings of the spinal canal through the lumbar sac without any injection at all suggests strongly that these serous coverings, too, must possess defensive works of the highest order, only requiring slight assistance in the removal of an overplus of poison to effect a complete recovery in many cases. And this does not apply alone to infection with Weichselbaum's bacillus. Those of us who, like myself, have seen our patients in a state of wild delirium, &c., from cerebro-spinal meningitis starting in the ear, relieved almost at once and ultimately recovering completely after repeated withdrawal from the lumbar sac of the products of inflammation, are driven to the conclusion that the powers of defence against bacterial invasion possessed by this cerebro-spinal serous membrane must be very great, and analogous to that of the peritoneum.

Once the assurance was arrived at that the serous membranes were on the side of the surgeon and not against him, a long step in advance had been made, and we were encouraged to put forth every power to preserve all their protective forces intact. For it became a matter of observation that these could, under certain circumstances, become exhausted. Prolonged exposure and chill, for instance, or injudicious manipulation or sponging quite apart from sepsis, had been found by experiments on animals and in practice on the human patient to lower the reparative forces of the peritoneum. And besides this, though the peritoneum could be shown to tolerate a certain amount of bacterial poison, it became quite clear that, marvellous as were its powers in this direction, they had their limits, and these could ultimately be reached, even in the case of the less virulent organisms. Also we came to know that there are various infections, for example, with certain streptococci, which seem almost from the first to baffle all the reparative and eliminative powers of the serous coverings. Which of us has not often seen cases, for instance, of appendical (or, as it is perhaps more classical to call it, with Küster, "epityphlitic") peritonitis successfully arrested by the natural powers alone, unaided by operation? And which of us has not felt in operating for epityphlitic abscess that we have done little more than provide an escape for pus which had already been securely shut off from the system by adhesions, in spite of the bacteria and their toxins? Which of us, finally, has not seen many cases of severe epityphlitic peritonitis, where we have opened the abdomen early and found only general redness of the serous surfaces, with very slight effusion and no trace of reparative lymph, where deep general toxæmia was already obviously present, and where from the first the peritoneum seemed unable to cope with the poison, either on account of its quantity or, more probably, of its peculiarly noxious quality? We have seen the same thing in many cases of punctured wounds of the intestines. In some, great advances in the direction of repair only calling for a little ordinary surgical help, and in the others no progress at all in the formation of plastic lymph, and a condition beyond the reach of any operative measures. When we speak now of peritonitis we are conscious that we are using a term which includes conditions as widely apart as are an ordinary attack of eczema and a desperate cutaneous streptococcal erysipelas. This knowledge has already had the greatest influence on our treatment of abdominal inflammations. Take, for instance, the question of drainage, formerly considered indispensable. We now know that in many cases it is not only not necessary, but injurious. Many of us are able now in certain cases, where an inflamed epityphlon or pyosalpinx has been removed from the middle of a small abscess, to close the parietal wound without drain and obtain flawless union *per primam*.

Another observation which has had an enormous influence upon the surgery of the bowel is that healthy intestinal walls will prevent the migration to any serious extent of the bacteria of the contents through them, but that if their vitality is lowered (to use an ordinary term) by accident or disease, even without any breach of surface, this migration will take place through mucous, muscular, and serous coats, and the general cavity of the perineum will thereby be infected more or less seriously. This most important discovery —first made upon the fluid found in the sacs of herniæ in

various degrees of strangulation and then demonstrated experimentally—has had a greater influence on our dealings with the intestines than is commonly supposed. On the one hand, it prompts us in our operative manipulations to deal as gently as possible with the tissues of the bowel, and, when the latter is damaged by injury, strangulation, or other diseases, to be sure that in removing it we only leave really healthy tissue behind, not merely that which shows no loss of substance, but such as is capable of resisting the emigration of organisms from within outwards. It also prompts us in cases where enterectomy is contemplated, and where time permits, to reduce the number of bacteria in the contents of the intestine by laxatives, enemata, and intestinal antiseptics, as well as by the cleansing of the mouth, teeth, and pharynx, and the use of only sterilised albuminous food. Moreover, it has led us in cases of obstruction to adopt the routine of washing out the stomach thoroughly before operation wherever feasible, knowing as we do, since the practice has been adopted, that in many such cases the stomach contains large quantities of putrid material which in course of time would have to be vomited or pass through the part of the intestine lowered in its vitality by the strangulation, and possibly also by the exposure and manipulation necessary during operation, thus increasing the chances of infection. That a certain limited number of bacteria pass from the intestine into the peritoneal cavity in health without injurious effects seems probable from recent investigations. This suggests the possibility of a gradual immunisation of the serous covering in chronic obstruction—a view which some of the facts observed in this condition seem to support.

Other additions to our knowledge, both theoretical and practical, have also combined to remove many of the risks of intestinal operations. Among these is our experience that patients after such procedures need not necessarily be entirely deprived of food by the mouth for long periods. This, of course, is contrary to the teaching of earlier days. And yet it is in accord with sound theory. We know now that the mechanical efficiency of our deeper line of sutures passing through all the coats of the bowel lasts in most cases for days if cleanly done, and is sufficient to prevent separation by the movements of peristalsis, and that round the outer seromuscular sutures enough lymph is thrown out in six or eight hours to produce fairly sound union and stop leakage. We know, too, that this plastic process is more perfect the better the patient is nourished. And as it is often the case that such patients have been precluded from having proper nourishment for days beforehand, or have constantly vomited it when taken, the need of aliment after operation is very great. Of course, when vomiting due to the anæsthetic is still present, food by the mouth is useless. But we are now able to give peptonised foods by the rectum, which were not formerly at our disposal, and have more recently learnt how to employ several important aliments subcutaneously. Here not only can water, the first need of the system, be given in large amount and with perfect safety in normal saline solution, but also carbohydrates in the form of 5 per cent. solution of glucose. In this way two ounces of sugar can be administered per diem; in short, a very important food, without any demand upon the alimentary tract. The increased action of the kidneys induced by the free instillation of fluids we believe to be most useful further in carrying off diluted toxic matters from the system charged with them as a consequence of the condition for which the operation was performed.

Then during the same period what improvements in the art of administering general anæsthetics have taken place! The drugs are now purer, the dosage better formulated, and the danger signals during administration better understood. We now recognise that the anæsthesia must be pressed while the peculiarly sensitive parietal peritoneum is being manipulated, while it may be reduced or actually omitted during the manipulations and stitching of the practically insensitive intestine. The amount of the drug therefore given in these mostly protracted operations is now enormously and advantageously reduced in the hands of experienced administrators. This we owe in a large measure to the recent brilliant demonstrations on the innervation of the parietal and visceral peritoneum by our Swedish and Russian *confrères*. Their discoveries supply us besides with many data of the utmost use in the localisation of lesions in the abdomen by painful impressions. Further, many of the dangerous pulmonary sequelæ of general anæsthesia so often seen not long ago in intestinal surgery, especially when stercoraceous vomiting was present, and before the routine of washing out the stomach before operation was practised, are now reduced in number and severity. Thus infective affections of the lung are avoided or controlled by greater care in cleansing the apparatus employed, and the rigid attention to the antisepsis of the teeth, nose, and throat which is now also a matter of routine. We have also learnt that the lung troubles which so often follow abdominal operations can be prevented, and favourably modified by abandoning as soon as possible the recumbent position formerly thought indispensable after operation, and by placing our patients in the sitting position in or out of bed within a day or two of the operation. This has also probably a favourable influence on that nightmare of abdominal surgery, pulmonary embolism or thrombosis, which, though regarded by most of us as depending on septic conditions, is undoubtedly favoured by shallow respiratory movements in the recumbent position.

Whether the employment of local and spinal analgesia will ultinately eliminate some of the risks following general anæsthesia, it is too soon to predict with any certainty. But from what I have myself seen of both procedures in hundreds of cases, and from the study of analyses of many thousands more now published, I cannot help hoping that there is a great future for both in abdominal and especially intestinal surgery. On one point, however, I believe all surgeons who have employed spinal analgesia to any extent are agreed, and that is that the conditions under which the operations are done with it are immeasurably superior to those present under general anæsthesia. There is, for instance, absolute quietude and relaxation all over the field of operation—no small matter in the patient's interests where delicate adjustment of parts is of importance. At all events, for my own part I have thought it my duty to study the whole question in its many aspects, and to examine into the value of these methods in hundreds of cases guardedly, patiently, and I hope dispassionately. For local analgesia, which is quite innocuous when used intelligently, there is undoubtedly a considerable, if restricted, field of usefulness in abdominal work, as, for instance, in strangulated hernia in the aged and decrepit. Here it is an ideal procedure, and I believe it has already saved many lives by eliminating the well-known risks of general anæsthesia.

Another point which has had a remarkable influence upon intestinal surgery has been brought out within the last few years, partly by experimental work on animals and partly by the experience of surgeons who have felt themselves compelled, for one reason or another, to remove considerable tracts of bowel. We have learnt that considerable lengths of the jejunum, ileum, colon, and rectum can be at all ages removed without any very apparent influence for evil upon the processes of digestion and assimilation. I do not for a moment wish to suggest that we have arrived at final conclusions upon this point. Physiologists are at present hard at work upon it, as I know, and are making extensive studies on the excreta of patients who have been compelled to part with various portions of the alimentary canal. Nor do I wish to acquiesce in the removal of any part of the latter tube for any but the most unavoidable reasons. I merely desire to draw attention to the fact that for some of the gravest emergencies in human experience large portions of the intestinal tube have been removed without seemingly producing the deleterious effects which might perhaps have been expected. My own experience of such procedures includes the removal, in one case, of between 6 and 7 feet of small intestine, in several of between 5 and 6 feet, and several more of lesser amounts of both small and large intestine. In none of these was there any evidence months or years later that the general health had been in any way injuriously affected. And it has been the same in many published cases though not in all. At all events, I believe it has been shown that the removal of any amount of small intestine up to 6 feet can be well tolerated. And, as far as I know from observation and study of the literature of the subject, age or sex does not influence this conclusion. My own eldest case was aged 76 years, and here at least 5½ feet were excised, the patient being in excellent health two years later, as was also another case over 50 years of age in which I removed 6½ feet. How much of the *large* intestine can be removed without demonstrable effects on

the health is not yet fully known, but for malignant and tuberculous affections nearly the whole has been taken away or excluded from use, and the patients have enjoyed good health afterwards. I have recently seen one of my own cases in which more than five years ago I extirpated a great part of the colon for malignant disease and excluded the rest, and the patient is now in the most robust health, and without any sign of recurrence, with only the rectum representing the large intestine. A full report of the effects on the excreta of the elimination of the colon in this case will soon be published from the chemico-pathological laboratory of University College. But it is, in my opinion, quite another thing to say that the large intestine should be removed for other less serious conditions, such as chronic constipation. Personally, I have no experience of the procedure for this trouble, and am not concerned with the controversy anent it.

Having reviewed some of the factors contributing to our present success in intestinal surgery, let us glance at some of the conditions formerly considered desperate which have been actually relieved during the last decade or two. Among the injuries, punctured and bullet wounds and bad contusions of the bowel have been successfully dealt with; gangrenous strangulations, external and internal, with or without the removal of long pieces of bowel, have been saved; large sarcomata involving intestine have been extirpated; tuberculous tracts of intestine in a hopeless condition of ulceration have been taken away with transient or permanent relief; typhoid ulcers and perforations have been excised, and though only a small percentage of the patients afflicted with them have been saved, owing to the general condition, we must remember that the best authorities tell us that the mortality of typhoid perforation treated without operation is 98 per cent. Intussusceptions operated on at a reasonably early stage are now almost invariably successful.

But perhaps the greatest achievements of intestinal surgery have been those gained over the terrible cancers of the bowel, so hopeless and so distressing until quite recently. If we had learnt nothing more about these than that they could in most cases be successfully short-circuited, and that the patients could thereby be relieved of the immediate dangers of obstruction without the sad necessity of a permanent artificial anus, with all its bodily and mental distress, we should have won an immense boon for a class of sufferers who claim our sympathy almost above all others. But the last few years have taught us far more. We have seen that cancers of every part of the large intestine, from the cæcum to the anus, can be removed with immediate success and with, at all events, as much prospect of non-recurrence as those of other parts; perhaps even greater. Indeed, this ought to be so, seeing that we are dealing in most cases with columnar epitheliomata of a low type of malignancy whose mode of lymphatic extension is through tissues well defined and accessible, and better understood, anatomically, than any other. In any case, the gain of several years of life, which is common now, is an enormous one, especially as the objectionable artificial anus is becoming rarer and rarer.

The greatest advance of all, however, is in the direction of dealing with those terribly distressing conditions due to cancer of the lower part of the large intestine. Since it has been demonstrated by countless cases that carcinomas of the pelvic colon and rectum, unapproachable only a few years ago, can now be removed with a good prospect of prolonged immunity from recurrence, if no more, a great load has been taken off the surgical mind. We owe to Kraske and his followers a great debt for the gift of the trans-sacral operation for the removal of cancer of the rectum. We owe him perhaps more for the working out of the combined abdominal and dorsal procedure which he has recently advocated for some cases as a substitute for his original trans-sacral method, the defects of which he has recognised and frankly acknowledged. And as its principles and details become more and more familiar and the selection of cases follows the usual course our gratitude will, I believe, deepen. In this procedure we have not only the prospect of excising the original growth anywhere between the anus and descending colon and preserving the anus in all its functional integrity, but also of removing those parts of the retroperitoneal tissues which contain the lymphatic vessels and glands likely to be, if not actually, infected with malignant elements from the growth. Herein we are only following the principle recognised now as indispensable in all operations on cancer, whether of the tongue, breast, or other organ—that is, that it is not only necessary to the highest ideals of success to extirpate the original cancer, but also all those tissues around, in which the lymphatics run, whether visibly or tangibly infected or not. This combined method of operating on the pelvic colon and rectum is, of course, a severe procedure, and at present has a high mortality for several reasons, mostly those due to faulty technique and inexperience in the selection of proper cases. But if in the hands of the best surgeons who followed Kraske in the first few hundreds of ordinary trans-sacral operations the mortality was over 30 per cent., and has fallen since in the hands of some experts, each with an experience of several hundreds of operations, to about 10 per cent., we may surely hope for a corresponding improvement in the immediate results of the abdomino-dorsal method as it is better understood. Of the superiority of its functional results over the sacral methods there can be no question. And as to the greater immunity from recurrence we have every reason to believe that it will be proved when we have larger numbers from which to judge after years of observation. And with so formidable and painful a malady there are numerous sufferers who would be prepared to face some extra risk from an operation which offered a larger hope on the two points of function and non-recurrence. And we must not forget that a new source of accuracy of diagnosis has come to us in the use of the Roentgen rays acting on meals mixed with bismuth and other substances. This method of examining the state of the bowel seems to promise in the future to patient and surgeon alike a large measure of help.

I have tried now to give a short review of the gradual evolution of intestinal surgery from the point of view of one who though still in his fifties has seen it in his own time. This evolution has not been the result alone of the better conception of asepsis, much as we owe to it. Nor has it been due altogether to improved manipulative skill. It has resulted from clearer views on the vital processes concerned in all lesions within the abdomen. These we have gained partly from closer clinical observation, aided by what we have learnt from the anatomist, the pathologist, bacteriologist, biologist, and physicist, and from careful sifting of our experiences, whether of failure or success.

Looking back, as I have tried to do here, and looking forward, as every hopeful man must and ought to do, we see encouragement in both directions. What has been done within the last few years in this important field of surgery, in spite of the enormous difficulties which surround it, assures us of a far greater yield in years to come, working, as we shall do, under more favourable conditions and with ever-increasing knowledge. Is any inclined to despond, thinking, mayhap, of the magnitude of the problems still unsolved and the smallness of his own individual powers of grappling with them, let him listen to the clarion note which rang out just one hundred years ago from one ranking among the greatest philosophic thinkers of his day and certainly its greatest poet:—

> "Wish upon wish to nobly gain,
> Wake up; behold the rising sun.
> Those lowering clouds will break in rain;
> Rend sleep's brief thrall and gird thee on.
> Rouse thee; be bold; and greatly strive.
> Heed not the falt'ring, loitering throng.
> The lofty soul can all achieve,
> Whose thought is swift, whose grasp is strong."

This appeal has since then been finely responded to by his own countrymen, though at the time almost crushed materially and inclined to be despondent. Let us see to it that we, too, undeterred by the languid interest in science of a commercial and materialistic age, press ever onward, thankful for past achievements in the interests of suffering humanity as we look backward, hopeful and courageous as we look forward to the years to come.

FOOD ADULTERATION.—The annual report of the Bristol city analyst and bacteriologist for 1908 states that during the year there were 1303 samples of food and drugs submitted for analysis. Of these 1170 were genuine and 133 were adulterated, the latter including 101 samples of milk, 15 of butter, six of margarine, and five of spirits. In 1907 there were 1300 samples examined and 122 were found adulterated.

CHRONIC "RHEUMATIC" MYOSITIS (MUSKELSCHWIELEN),

WITH CASES SHOWING SOME COMMON ERRORS IN DIAGNOSIS.

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I FIRMLY believe that the most frequent cause of the so-called "gouty" or "rheumatic" pain is a form of chronic myositis, and surely suffering which is so widespread and which will in most cases yield to appropriate treatment demands our attention. These muscle deposits have been recognised and successfully treated abroad in the Germanic countries for more than 35 years.

At the January meeting of the Philadelphia Neurological Society of this year, in a paper on "Indurative Headache,"[1] I called attention briefly to these general muscular thickenings. While reading the references for that paper I was amazed to learn of the frequency of the development of chronic myositis in muscles other than those of the head and neck, and my attention was also attracted to errors in diagnosis to which this condition has given rise. As early as 1843 Froriep[2] recognised the condition, but the first important contribution to medical literature upon this subject is by Uno Helleday,[3] a Swede, who, in 1876, wrote extensively about this matter and reported eight cases showing that lesions occur in various parts of the body, all of which he treated successfully. The article finally ends as follows: "The object of these histories and what has gone before is to impress you with the importance of carefully examining the musculature of many cases which present a picture other than that which you usually understand as muscular rheumatism." Gowers,[4] under the heading of "Neuromyositis," writes without being at all definite about the subject, but he evidently recognises that it is important when in closing he says: "The influence of gout, including ancestral gout, is a subject upon which the young practitioner starts with a high degree of scepticism regarding the teaching of his seniors. But year by year his doubts become fewer and fewer, as they are rubbed away, or removed more sharply, by contact with fact." Because of the thoroughness of Gowers's writings, I mention his book to show that this subject has made almost no headway among the English-speaking people since its careful study by the Scandinavians more than 35 years ago.

Among the causes affecting this condition is heredity, there being a distinct family tendency to these diseased muscles. The effects of climate and weather are most marked. In a case of indurative headache which I have reported the patient found the damp, foggy weather of England very annoying, but he was happily free from suffering while travelling in Switzerland. Chilly and rainy weather often causes the indurations to become painful; it is sufficient to be within the outer limits of storm conditions and not necessarily within the area of rainfall. They may appear at almost any time of life. I have recently observed temporarily infiltrated muscles in the neck of a child of two years and they are common in old age. While probably no voluntary muscle enjoys an immunity there are sites of predilection, the most common of which is in the muscles of the head and neck. This, I believe, is due to the exposure through lack of covering, to which this part of the body is necessarily subjected. The gluteal, lumbar and deltoid regions, and calf muscles are often involved. The muscles may be invaded at their points of insertion, as in those attached to the superior curved line of the occipital bone and those inserting into the processes of the upper cervical vertebræ, or the infiltrations may appear within the bodies of the muscles as is frequently seen in the abdominal walls, and in the sterno-mastoid muscles near the level of the thyroid cartilage. At times the infiltration extends to the periosteum to which the muscles are attached and also to the fascia.

The pathology of these diseased muscles is largely hypothetical for the reason that people do not die from this condition. By some it has been thought to be of nervous origin, but Vogel, quoted by Bum,[5] in sections from rheumatic muscle found thickening and adhesion of the neurolemma to the nerve branches supplying the muscles, a finding which does not strengthen the neurogenous hypothesis of this condition. Oppolzer,[6] from his studies, believes the lesions are not inflammatory in character, a view which does not coincide with that of Helleday. The muscle infiltration may be due to the deposition of an excess of the salts of uric acid or an allied substance, with the later formation of connective tissue. I have known vigorous massage treatment of a patient with extensive indurations to be followed by an attack of acute muscular rheumatism. It seems probable that this formation of indurations is a manifestation of a metabolic disturbance autotoxic in character. At all events it appears that as soon as good circulation is established relief is at once experienced. Whatever this muscle poison is, many of its subjects have had bilious attacks in childhood, and in advanced life they often suffer from arteriosclerosis.

These infiltrations or myisitides (the Germans prefer myitides) may "make up" over night; they are frequently absorbed but tend to recur. After appearing again and again at the same point they finally become chronic and then vigorous treatment is necessary for their removal. The enlargements present a different feeling upon palpation, depending largely upon their duration; the longer they exist the firmer they become and the more resistant they are to treatment. Those of recent development are known as *swellings* and feel doughy to the touch; others because of their firmer consistency are spoken of as offering resistance; and finally those of long standing show cartilage-like thickenings and are known as *indurations*. They also vary in size and in the intensity of the pain which they occasion. There may be a diffuse and extensive infiltration which causes but little inconvenience and which may not manifest itself except during action of the involved muscle, as is seen in the milder cases of lumbago. Again, small patches may give rise to frequent and excruciating pain and this is not unusual in the abdominal muscles, where shot-like enlargements are often found.

It has seemed in what I can gather from the literature and by my own personal experience that these deposits may develop under the following conditions: in muscles that are overworked, as in some cases of writers' cramp[7] and other occupation neuroses; in those that are not sufficiently exercised; in muscles that are much exposed, as in those of the head and neck; and, finally, where an injury has been sustained, which is frequently the case in the back. The symptoms are those of pain which may be sharp and cramp-like, or there may be an aching sensation upon use of the diseased tissue. Instead of pain there is at times paræsthesia at some distance from the deposit, as in a patient seen by Norström[8] in Paris who had for years complained of the sensations of cold, numbness, formication, &c., in the thumb and two adjoining fingers of the right hand, and which upon examination presented a big lump in the deltoid muscle which pressed upon the radial nerve without giving any special abnormal manifestation in the muscle itself. There is often muscle insufficiency. Upon pressure made with a friction movement there is tenderness, but firm and steady pressure often affords relief. If the swollen muscle impinges upon a nerve trunk or nerve fibre a true neuralgic pain will result. There may be diminished or absent elasticity; finally, the presence of a palpable thickening in the muscle; fever and redness are absent. There are often associated symptoms in various parts of the body, some of which are depression of spirits, mental torpor, unnatural drowsiness, marked susceptibility to cold, torpidity of the liver, indigestion, painful spasms of the calf muscles, paræsthesia, general myasthenia, pyorrhœa alveolaris, and hypersensitiveness of the teeth.

To those familiar with muscle conditions I know of but one lesion that is likely to be mistaken for an induration, and

[1] Indurative Headache (Schwielenkopfschmerz), with Report of Three Cases, Journal of the American Medical Association, April 24th, 1909, vol. liii., p. 1316.

[2] Ein Beitrag zur Pathologie und Therapie des Rheumatismus, Weimar, 1843.

[3] Om Myitis Chronica (Rheumatica), Nordiskt Medicinskt Arkiv, vol. viii., 1876.

[4] Diseases of the Nervous System, P. Blakiston's Son and Co., Philadelphia, 1903, vol. i., p. 134.

[5] Handbuch der Massage und Heilgymnastik, Urban und Schwarzenberg, Berlin, 1902, p. 293.

[6] Allgemeine Wiener Medicinische Zeitung, v. 27, 1867.

[7] Wide: Handbook of Medical and Orthopædic Gymnastics, Funk and Wagnalls Company, New York, 1903, p. 277.

[8] Chronic Headache and its Treatment by Massage, New York Medical Journal, 1905, vol. lxxxii., p. 966.

that is a gumma. Indurations are exceedingly common; there is a history of chronic rheumatic pains; as a rule they are less sharply defined; there is pain upon pressure with friction, and they yield to massage treatment. Gummata in muscles are relatively rare, are not usually painful, are attended by other evidence of syphilis, and disappear under antispecific medication.

The mistakes in diagnosis to which these rheumatic deposits give rise are very numerous. Many cases of cephalalgia are of this variety[9]; involvement of the intercostal muscles has been taken for intercostal neuralgia and pleurisy; in the abdominal wall for acute and chronic appendicitis, gastric ulcer, abdominal and pelvic adhesions, calculus of the kidney, and floating kidney; involvement of the gluteal region for sciatica and hip-joint disease; in the neck they have been mistaken for swollen glands; the frequently complained of growing pains in children I believe are due to this condition, since the healthy growth of a child should not be painful.

I shall allude briefly to a case reported by Kleen[10] which was at first thought to be one of gastric ulcer. The patient was a female, aged 23 years, single, who for more than a year had suffered from pain circumscribed at a point over the gastric region a little to the left of the median line. The pain was constant but worse after meals. There were other slight symptoms of indigestion. Upon palpation a distinct difference in the consistency of the upper portions of the recti abdominales muscles was made out, the left being the harder and the more extensively infiltrated. At this area careful lateral pressure caused sharp pain which evidently had its origin in the muscle. When she endeavoured to rise without the assistance of her hands the pain was intensified at this point. The patient recovered under less than a month's massage treatment.

I have myself encountered indurations in the abdominal muscles and know of a Philadelphia woman who for a long time had suffered from sharp attacks of pain in the abdominal region. During a trip abroad she had an attack of unusual severity. A physician was summoned, a diagnosis of appendicitis was made, and immediate operation was advised. Having recovered from a number of milder attacks the patient was not sufficiently alarmed to submit to the suggested surgical interference, and in a day or so the pain subsided. Upon her return to Philadelphia her condition was recognised as being due to deposits in the abdominal muscles. Through a course of massage the diseased muscles were restored to normal, and while she still has her appendix she no longer has the abdominal pains.

Moderate distension of the abdomen with gas is very common, and with the abdominal muscles in this indurated condition it takes but slight distension to cause stretching of the diseased muscle fibres, thereby causing pain. In some of the cases where normal appendices are found at operation it is the abdominal muscles that are at fault. I have recently examined the abdomen of a physician while he was having an attack of colicky pain. He was subject to mild attacks of this kind and stated that some time before he believed that he had an attack of appendicitis, but that an examining surgeon advised against operation. I found his abdomen slightly tympanitic and the abdominal muscles infiltrated and very tender. The pain was relieved by firm, steady pressure. Some of the muscles of the head and neck were hypersensitive and he often suffered from headache. Within a few hours the distension subsided and the pain ceased. I think it very unlikely that his appendix had at any time caused the abdominal pain.

I am aware of the incredulous attitude of orthopædic surgeons towards a rheumatic condition about the hip-joint of a child, but the condition surely exists at times, and there are a number of cases in literature where rheumatism has been mistaken for incipient tuberculosis of this part and the child has been placed upon extension, while a later diagnosis was followed by proper treatment and prompt recovery. This may account for cases of hip-joint disease reported as cured without shortening and with perfect motion. Many cases of early hip-joint disease are diagnosed as something else, and the fact remains that a few cases of lameness with rigidity of the muscles about the hip and pain around the hip and knee are rheumatic and should be recognised and treated as such.

The following case was referred to me by Dr. Ralph Butler in April of this year. The patient was a dressmaker, aged 38 years, in whom the present trouble began 14 years ago with an intermittent grumbling pain in the right lower jaw. Six weeks later she had a severe attack with pain extending into the right ear and back part of the right side of the tongue. The year following the attacks became frequent and quite severe. At times several months would pass without paroxysms; again they might occur every five or ten days and persist for days or even weeks. The neuralgia would often begin with frequent and mild attacks, then recur more often and be of greater intensity. At times when asleep she would be awakened by such an agonising attack that she would cry out with pain. She has walked the floor for hours with her hand pressed as forcibly as possible against her face. For a week at a time her face has been so painful and stiff that she had to limit herself to a liquid diet. There were occasions when it was almost impossible to avoid provoking attacks, they being caused by passing a comb ever so gently through the hair, the slightest breath of cold air, brushing the teeth, putting out the tongue, or even attempting to speak. The paroxysms would start with just a few twinges of pain; these would increase, and then the most agonising suffering would ensue. Attacks would last for almost a minute, recur again and again, and finally cease, leaving the patient almost exhausted. During the most severe attacks the affected side of the face would suddenly become flushed and the eyeball injected; this would pass away with the paroxysm. During the most severe attacks the pain would extend into the orbital cavity. Her oculist was consulted yearly in the hope of obtaining relief, six teeth were extracted, but all without improvement. Three years after the beginning of the attacks the facial muscles began to twitch; this was relieved by an injection of alcohol. A year ago a neurologist was consulted, who said that the Gasserian ganglion should be removed at once. In addition to the neuralgia there had been headaches, which were very severe and of late had become almost constant. There was much pain in the back of the neck and at times the scalp was very sensitive. She had frequently suffered from rheumatic pains in different parts of the body, especially in the right arm and about the right hip, where infiltrated areas were present. The neuralgia, headaches, and bodily pains were all worse in damp and stormy weather. A year ago she was obliged to give up her work for six months, and this spring her suffering was just as great.

On examination the patient was anæmic, with an anxious expression, and presented the appearance of one who had undergone great suffering. The scalp was thickened and hypersensitive, with especially painful areas over the trapezius muscle and in the supraorbital region on the right side; these areas were indurated, as were most of the trapezius and other muscles attached to the occipital bone. There was also involvement of the muscles on either side of the neck, especially at their attachments to the transverse processes of the upper cervical vertebræ. The most sensitive part of the face was along the upper lip just below the nose. It would take but the slightest touch at this point to provoke a paroxysm. The small facial muscles were thickened and painful upon the affected side.

I made a diagnosis of trifacial neuralgia (tic douloureux) of peripheral origin, involving the three divisions of the nerve, and indurative headache. Local treatment in the form of manual massage and rapid vibration delivered by an electric motor was advised. After a few treatments the spontaneous attacks of neuralgia ceased, though they could be provoked by pressure over the hypersensitive area of the face. Three treatments per week for two months were followed by cessation of both headache and neuralgia. The treatment was continued for a month longer since some of the involved muscles were still quite sensitive, and it was evident that absorption had not been complete. There was no internal medication except a gastric tonic for two weeks and the free use of an alkaline laxative water during the first month. I do not yet report this case as one permanently cured, but the disease is certainly arrested, and I hope the good hygienic life under which the patient now lives may prevent the further formation of indurations.

Clifton Heights, Pa.

[9] Edinger: Diseases of the Nervous System, Appleton and Co., New York, 1908, p. 863.

[10] Handbook of Massage, P. Blakiston's Son and Co., Philadelphia, 1892, p. 95.

CASE OF MISSED LABOUR TREATED BY ABDOMINAL SECTION.

BY C. E. PURSLOW, M.D. LOND.,
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IN THE LANCET under date of June 26th is an account of a case of missed labour by Dr. Peter McEwan of Bradford, in which he makes the suggestion that some cases of this kind would be best treated by abdominal section. This prompts me to send you an account of a case in which I carried out this line of treatment and which is, I believe, in some respects unique.

The patient, aged 33 years, was admitted to the Queen's Hospital, Birmingham, on Sept. 19th, 1907, with the following history. She had been married 12 years and had had four children and one abortion; the latter was an instance of missed abortion, and the circumstances are so unusual that I may be pardoned for narrating them. On that occasion she came to the Queen's Hospital and stated that she was passing "bones" per vaginam. As the uterus was large she was admitted on Nov. 16th, 1905. On inquiring into her history it was found that her last menstrual period had taken place in May; subsequently she had considered herself pregnant and for three months there was complete amenorrhœa. Irregular losses then came on and continued until admission, and for some weeks she had passed an occasional bone. The uterus was found to be of the size of a three months' pregnancy. The patient was anæsthetised, the os dilated by Hegar's dilators, and a mass of fœtal bones was removed by ovum forceps and flushing curette. These were carefully examined by Dr. A. E. Remmett Weaver, obstetric house surgeon, and were found to comprise almost the entire skeleton of a three to four months' fœtus. She made a good recovery and went home at the end of a fortnight.

After leaving hospital the patient menstruated regularly, the last period occurring on Sept. 16th, 1906. From that date until her second admission, a period of more than 12 months, there had been no sign of vaginal hæmorrhage. She considered herself pregnant, and in February felt fœtal movements; these continued up to June and then entirely ceased; since that time she had suffered from a rather severe constant pain in the abdomen from which she was very anxious to be relieved. On examination she was found to present the signs of full-term gestation, but there was very little liquor amnii, and the uterus was hard and felt as though it were in a continual state of tetanic contraction; it was tender on palpation. The cervix was not typically softened and the os was closed. Two days after admission she was placed in the lithotomy position under anæsthesia with the intention of dilating and evacuating the uterus; it was found impossible to pass a Hegar's dilator into the uterus and the same was the case with the uterine sound. I was at a loss to explain this and suspected a fibroid in the lower segment. I therefore opened the abdomen and removed the uterus by panhysterectomy. The wound healed by first intention and the patient made a good recovery.

The uterus with its contents was submitted to Dr. Leonard G. J. Mackey, pathologist to the hospital, and he reported as follows: "The uterus is closely moulded to the fœtus; there is barely an ounce of somewhat turbid liquor amnii. The fœtus is the size of a full-term child and, judging by the general appearance, the length of the nails, and the amount of hair, it appears to be fully developed. The skin is of a dirty-brown colour; the cuticle, wrinkled and easily detached, is covered in parts with a cheesy substance which is deep yellow as if stained with bile. The bones of the skull are loose and move easily as one presses on the scalp. The wall of the uterus is about half an inch in thickness; the muscle is pale and easily splits into layers. The placenta is situated almost centrally over the internal os and lines the lower two-thirds of the uterus; it is of very firm consistence. A thin grey membrane separates the uterus from the placenta and remains attached to the former when the latter is removed. The specimen is quite odourless. Microscopically, the placenta shows a finely scattered calcareous deposit, the villi have undergone hyaline degeneration, and there is old thrombosis of the intervillous sinuses. There is a considerable amount of fibrous tissue scattered among the muscle fibres of the uterus, but the muscle itself does not show any marked change. The walls of the arteries are thicker than usual, many of the large blood spaces are filled with old thrombi, and, in some, organisation of the thrombus is well marked."

Missed labour is by all authorities regarded as a very rare condition, and its occurrence in a case of complete placenta prævia is, I think, unique. I have made an extensive search but have been unable to discover any record of a similar case. The obstruction caused by the tough placenta explains the inability to pass the sound or dilator into the uterus.

Birmingham.

A CASE OF INCARCERATION OF THE VERMIFORM APPENDIX CONTAINING A FOREIGN BODY (PIN) IN THE SAC OF AN INGUINAL HERNIA IN A CHILD.

BY THOMAS H. KELLOCK, M.C. CANTAB., F.R.C.S. ENG.,
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IT is not at all an uncommon experience to find the vermiform appendix as the occupant of the sac of an inguinal hernia, nor can the lodgment of a foreign body in a child's appendix be regarded as a very rare event, but the combination of these two conditions which occurred in the following case must be rare, and would seem to make the case worthy of record.

A male child, two years and four months old, was recently admitted under my care at the Hospital for Sick Children, Great Ormond-street. He came of a family in which there was no history of either tuberculosis or syphilis and had had no previous illness. The first indication that there was anything wrong was about six months previously, when the mother accidentally noticed that he had a small hard swelling in the right inguinal region. She stated that it seemed to be neither painful nor tender, and did not seem to cause the child any inconvenience. From that time onward she thought it increased slowly in size, but it never disappeared even when the child was asleep. He had not been sick, and the bowels had acted regularly. For the fortnight before admission he had not taken his food as well as usual.

On admission the patient was an undersized delicate-looking child. Just outside the external abdominal ring on the right side a tumour of about the size of a filbert could be seen and felt, oval in shape, very hard, especially at the lower end, attached apparently to the subcutaneous tissues, irreducible, and without impulse when the child cried or strained. It could not be moved independently of the spermatic cord, although traction on the testicle did not have much effect on it. The testicle and spermatic cord below the swelling were normal, and examination of the abdomen revealed nothing suggestive of tuberculous disease of the peritoneum. Examination of the chest showed some dulness at the base of the right lung, where the breath sounds were weak. As the swelling in the groin did not seem to cause the child any inconvenience, operation was delayed on account of the condition of the chest. Here about 14 days later definite signs of fluid showed themselves; the pleura was opened and a quantity of pus was evacuated. Bacteriological examination of this showed it to contain streptococci and a pure culture was obtained. The empyema was nearly a month in closing. At the end of that time the child's general condition had very materially improved and it was decided to explore the tumour in the groin which had remained practically stationary in size.

On making a longitudinal incision over the tumour it was at once seen that there was a good deal of infiltration of the subcutaneous tissues. After separating some of the adherent parts the tumour was isolated; it was found to have a pedicle leading up through the external abdominal ring and to be intimately connected with the spermatic cord. The front of the tumour was densely hard, but posteriorly it was soft, and on making an incision behind it was found that a sac had been opened and immediately under the incision the proximal end of the vermiform appendix was recognised. On attempting to draw this out it was found to be adherent at its distal end, but traction on the proximal end brought down

the cæcum. With some difficulty the appendix was divided close to the cæcum and the latter returned to the abdomen. The rest of the tumour was then removed, the neck of the sac being transfixed and tied and the abdominal wound closed.

On examining the mass that had been removed it was found to contain the whole of the vermiform appendix; the proximal portion was healthy, but the distal end was much thickened and intimately adherent to the wall of the sac. It was found to contain an ordinary pin which was lying almost transversely to the lumen of the appendix; the point had perforated all the thickness of the wall of the appendix and was implanted in the wall of the hernia sac and surrounding tissues. There was no pus either in the lumen of the appendix or in the surrounding parts. Slight suppuration occurred in the superficial part of the wound, but this rapidly healed, and the patient was discharged in good health just a month after the operation.

It can only be a matter of conjecture in this case whether the impaction of the pin in the appendix or the descent of the latter into the hernia was of primary occurrence. The fact that the mother had never noticed any swelling in the situation of the hernia before she discovered the hard lump there would, perhaps, point to the probability of the pin having been in the appendix before this descended into the sac. It must also be a matter of doubt as to whether there was any causal relation between the perforated appendix and the empyema. The extraordinarily little discomfort which the condition caused the child and the absence of actual suppuration when the wall of the appendix and that of the hernia sac were both perforated by the pin seem rather noticeable features in the case.

Queen Anne-street, W.

A CASE OF ANGIO-NEUROTIC ŒDEMA ASSOCIATED WITH CIRRHOSIS OF THE LIVER.

BY S. G. CORNER, M.A., M.B., CH.B. EDIN.

A MALE patient, aged 40 years, consulted me in the latter end of 1908 for swelling of both ankles and pain which prevented him from walking. He had suffered from this condition for three years. On examination I found œdema of both feet and ankles, which were tender on pressure. All the veins of the lower extremities, together with the superficial abdominal veins, were varicose and distended, and an enlarged vein was present in each axilla. Slight enlargement of the liver was evident, and I had reason to believe that some degree of cirrhosis of that organ was present. The heart and lungs were normal. There was nothing notable in the family history or previous illnesses of the patient except that about three years ago he sustained a fracture of the tibia, from which time he dates his œdema and varicose veins. The urine was normal.

Under rest, total abstinence, and Scott's dressing applied to the ankles he recovered in three weeks and was able to walk without pain. About a month later, while in bed, his upper lip suddenly swelled up. He came to me the next morning and showed a tense swelling in the left side of his upper lip. The swelling subsided during the day, but next night his lower lip became similarly affected, and a swelling developed in the neck. Night after night a lump appeared in a new place. Once the whole tongue was swollen up, so that he could not protrude it. On another occasion the scrotum became tense and œdematous. The back, the buttock, and the arm—in fact, any region—was liable to become the seat of a sudden swelling, varying in size from that of a hazel-nut to that of a hen's egg. The tumours generally appeared at night and were preceded by slight itching.

I regarded the case as one of angio-neurotic œdema and gave him 10 grains of calcium chloride three times a day, increasing the dose to 20 grains. Whether as the result of this treatment or not, the swellings appeared at longer intervals, and in about a month he finally had no swellings at all. He has now been perfectly well for four months, though he still retains varicose veins of the lower extremities and on the surface of the abdomen.

Coggeshall, Essex.

THE PLACE OF THE POOR-LAW MEDICAL OFFICER IN A UNIFIED COUNTY MEDICAL SERVICE.[1]

BY MRS. SIDNEY WEBB, D.LITT.

I HOPE that I shall not be considered impertinent if I venture to say that of all the branches of the public service that of the Poor-law medical officer seems to me to be, at present, the most hardly treated, the least appreciated, and the most depressed. Take, first, the remuneration. You are unfortunately only too well acquainted with the miserable pittances of £50, £80, or £100 a year that the nation allows to thousands of fully qualified practitioners, for laborious duties of the highest importance to the public health, at a rate which often works out at a few pence per attendance. Consider the degradation of having to balance the cost of the drugs that ought to be used in any particular case against the prospect of having to spend on that case out of your own pocket far more than you are paid for it. Then consider the total absence of any professional stimulus, the lack of any encouragement by competent inspection, the absence of professional records, the complete indifference of boards of guardians and the Local Government Board to any results, as shown by their failure to ask for any reports or to inquire whether the patients live or whether they die. Finally, think of the future of a Poor-law medical officer. Year after year he may go on in the same round of uncomfortable Poor-law practice, without prospect of promotion, usually without even an advance of salary, without the slightest chance of rising out of the narrow rut into which Fate has thrust him. Has any mark of distinction or any sort of public honour—I do not say a baronetcy, but anything whatsoever—ever been given to a Poor-law medical officer, as a Poor-law medical officer, even for the most meritorious, the most zealous, the most useful, and the most prolonged official service?

In the course of my membership of the Poor-law Commission there was nothing with which I was more impressed than with the amount of devoted work, really quite unpaid for, that the Poor-law medical officers were, as a class, giving to the poor; or than the utter lack of official appreciation and encouragement which that work secured. What many members of the Poor-law medical service feel most is not the miserable pay that they get, nor the lack of official appreciation or encouragement, nor even the absence of honour and dignities, but the extraordinarily narrow scope that, under the necessary limitations of the Poor-law, they find for useful work. It is not encouraging, for instance, to have through one's hands (as the Poor-law medical officer does) one-third of all the deaths from phthisis; and yet, as several Poor-law doctors told us, never to have seen among them a single curable case. It breaks the spirit of a man who cares anything about his professional work to have to go on year after year merely pretending to deal with cases, which have come to him only when destitution has set in, and therefore usually too late for any permanently remedial treatment, under structural and other conditions which he knows will prevent cure, but which he, as a mere Poor-law doctor, has no power to prevent. Meanwhile, he sees the medical officer of health in go-ahead districts advancing from point to point, starting this and that promising experiment, with municipal hospitals, bacteriological laboratories, Roentgen ray treatment, milk dispensaries, school clinics, and what not, obtaining not only all the honour and glory, but apparently unlimited scope, at the public expense, for really useful service of the State.

Now the two Reports of the Poor-law Commission agree in recommending the prompt and complete destruction of the present Poor-law system, the abolition of the workhouse, and the abandonment of the well-known "principles of 1834." But they differ vitally in what they propose to construct. The Majority Report proposes that the Poor-law medical service shall continue in England and Wales separate from the public health service, under a separate local authority, and that it shall remain rigidly restricted to attendance on paupers. It follows (as

[1] A paper read at the annual meeting of the Poor-law Medical Officers' Association of England and Wales, held at the Guildhall, London, on July 6th, 1909.

is inevitable under any Poor-law authority) that the patients are not to be eligible even for medical treatment until they have become destitute, and that the treatment must cease as soon as they cease to be destitute. Moreover, it is proposed that there should be, alongside the work of the Poor-law doctor, a great extension of the contract practice of provident dispensaries, in which as many people as possible are to be enrolled. The fees from these enlarged provident dispensaries are, however, not to be secured to the Poor-law medical officer; they are to be shared among all the doctors of the district, including any newcomers who may be attracted by this bait, according to the number of patients who honour them with their patronage—for everyone, even the pauper, is to have free choice of doctors. The district medical officer will thus find his professional work dwindling, for the competition will be increased, and it will often not be the "parish doctor" who is preferred; and the chance of any improvement in salaries will therefore not be great. Indeed, it is expressly contemplated in the Majority Report that the new Public Assistance Authority will find the duties of the district medical officer gradually dwindling away, his work being more and more taken from him, so that, after more or less lingering, he will be, without abolition of office and therefore without compensation, wholly got rid of.

The Minority Report proposes, on the other hand, that both the Poor-law medical service and the public health service should be merged in a new county medical service, working under the supervision of an enlarged health committee of the county or county borough council. Into that county medical service would come all the different branches of medical practice that are or may be maintained at the public expense—the isolation and other public hospitals, including the existing workhouse sick wards and the Poor-law infirmaries; the domiciliary or dispensary work of the district medical officer; the whole public supervision of, and whatever public provision is or may eventually be made for, maternity and infancy up to school age; the county homes for the aged needing institutional care, and whatever county institutions may be provided for the crippled and the incapacitated; the milk clinics, the bacteriological laboratories, and the elementary and public secondary school inspection and doctoring; the examination of candidates, the certification and the medical treatment required by all the public services in the county; and the general sanitation of the whole district. Only by some such unification into a county medical service, it is suggested, can we put a stop to the very serious overlapping and duplication between the different rate-supported medical services that is now so rapidly increasing. Only by some such unification can we prevent the Poor-law medical service from being more and more definitely restricted in the scope of its work, and from being more and more overshadowed by the growing public health department.

It is, I think, clear that under such a county medical service, which sooner or later is bound to come, there will be no question of all the work being done by one medical officer. There will be needed all sorts of medical practitioners. To say nothing of the subordinate staff of minor health officers and nurses which would be organised under medical supervision to the extent required by the circumstances of each part of the county, there would be the domiciliary and dispensary practice which the community is bound to maintain for those who cannot pay a remunerative fee to the private practitioner. This would doubtless remain in the hands of the present district medical officers until the occurrence of vacancies permitted a re-arrangement of districts. There would be no disturbance of the rights or positions of existing officers. Probably as the existing district medical officers retire, or to the extent that they may choose to exchange their private practice for a salary and the prospect of a pension, the future will see the private practitioner relieved of all necessity for taking on the laborious and underpaid Poor-law work (like other contract practice) merely in order to keep out interlopers. We may contemplate the district medical officer of the future as invariably a whole-timer, absolutely debarred from private practice, properly salaried and pensionable, and provided with a county motor-car to enable him to cover a large district whenever he is summoned by telephone by the local nurses, dispensary attendants, and minor health officers whom the county employs, leaving the private practitioner of the future free to monopolise all the paying practice. Alongside this domiciliary and dispensary service of the district medical officer there would be an institutional branch of the county medical service (into which the district medical officers would be promoted) of medical superintendents and resident medical officers of the various kinds of public hospitals, convalescent homes, phthisis sanatoriums, homes for the aged, institutions for the incapacitated, and what not, into which the present Poor-law and public health institutions of the county would be differentiated. This branch, of course, would be in the main—though not to the exclusion of consulting physicians and surgeons—a whole-time service, recruited largely from the district medical officers of all the counties, debarred from private practice, with adequate salaries and pensions. Alongside these two branches of the county medical service there would be a third, the special sanitary service, probably not localised, but visiting the various parts of the county as required, using the greater mobility now afforded by the motor-car, and discharging such of the duties of the medical officer of health as were not combined with the domiciliary practice of the district medical officer.

Finally, there would be at the head of all, in general charge of the whole medical staff and medical institutions of the county, the county medical officer, probably aided, in the larger counties, by one or more assistants serving, so to speak, on his staff, and representing, probably, different branches of the county medical service. The county medical officer, who would hold a very highly paid and responsible post, and his assistants, who would likewise be whole-timers of lifelong experience, would, in fact, be chosen indiscriminately from any of the three branches of the county medical service, the chance of promotion to the highest posts being thus open to any medical men, whether district medical officers or institution superintendents, clinicians or sanitarians, who developed not only professional but also administrative ability. For it is a great mistake to suppose that the county medical officer need be, or ought always to be, a sanitarian. At present, it is true, the medical officer of health with his D.P.H. is apt to get all the plums, but this is just because the Poor-law medical service is kept outside *as* a separate Poor-law service, in which there is no possibility of advancement. I see no hope of improvement so long as this isolation continues. But the sanitarian has, from the standpoint of county administration, often grave defects. From his lack of experience he sometimes forgets to allow for the difficulties of domiciliary practice. He is apt to leave out of account the very stubborn feelings and prepossessions of the average man, who will not be dragooned into health. He runs the risk of falling behind in his professional knowledge, so far as clinical work is concerned. On the other hand, there are growing up in the Poor-law medical service many men who join high professional qualifications and great range of experience with administrative training as the superintendents of Poor-law infirmaries larger than most voluntary hospitals; or as conducting domiciliary and dispensary practices of greater range and extent than the majority of those who are only private practitioners; or as the resident medical officers of workhouses of gigantic size, in which they have to deal with every age, from infancy to senility, and with every possible case, from childbirth to cancer, from tubercle to typhus.

I venture to think that the part played by the Poor-law medical service in the future county medical service will be one of dignity and importance, and that the early creation of such a unified service, as advocated in the Minority Report, offers the only practical means of putting an end to the very unsatisfactory position in which all sections of the Poor-law medical service now find themselves.

RUSSIAN CONGRESS ON THE BLIND.—At the second Russian Congress on the Blind, which was opened on June 2nd, Mr. M. I. Reich said in a paper "On the Causes of Blindness in Russia," that in European Russia the number of blind is greater than in the remaining governments of Europe, it being 20 per 10,000 of the population. Over 20 per cent. of the blindness was caused through glaucoma and 19 per cent. through trachoma, which proportion compared with other countries is very striking. Other causes were small-pox and suppurating inflammation of the eye in new-born children. He held 45 per cent. of the cases to be preventable and mentioned vaccination against small-pox as one of the most important preventive measures.

Medical Societies.

EDINBURGH OBSTETRICAL SOCIETY.

Plea for a Rational Puerperium.—Minute Anatomy of the Pregnant Tube.

A MEETING of this society was held on July 14th, Professor W. STEPHENSON (Aberdeen), the President, being in the chair.

Dr. F. W. N. HAULTAIN read a paper on a Plea for a Rational Puerperium, a record of 100 cases. He had for years thought that the conduct of the puerperium had simulated more that of the convalescence from a severe illness than the management of the sequel of a normal function. After reading von Alvensleben's paper he felt he had some foundation to go upon against popular prejudice and fashion. The mode of management adopted was as follows. The puerpera, if willing, was encouraged to sit up in bed to meals on the second day. As early as she felt inclined thereafter she was allowed to leave her bed and walk to the fireside, where she sat for an hour; on the following day this was repeated morning and evening. The next day two hours morning and evening were spent out of bed, the patient sitting and walking a little if she so desired. The fifth day after rising was practically spent out of bed with the exception of a few hours' rest in the afternoon, and on the tenth day the patient left the hospital. 100 cases followed this line of treatment, all of whom sat up in bed on the second day, 40 rose on the third day, 35 on the fourth, and 25 on the fifth day. Of the 100 cases 47 were primiparæ and 53 multiparæ. Each was carefully examined before leaving the hospital and as many as possible six weeks later. The morbidity in these cases—i.e., a temperature over 100° F. or a pulse over 90 for 12 consecutive hours—was represented by three cases; two developed infective temperatures on the third day, one left the hospital on the sixteenth day, and the other on the twenty-eighth day. Routine examination on the day of leaving the hospital showed the pelvic organs to be normal except in two cases where a slight retroversion of the uterus was present. In one there was considerable varicosity of the legs, but the woman remarked it was not nearly so bad as after previous confinements. All the cases examined six or more weeks after (43 cases) showed involution to be thorough and the position of the uterus normal except in the two cases previously mentioned. The women were uniformly eulogistic in their commendation of the treatment, and the multiparæ having the opportunity of comparison gave it most convincing approval. Was there any advantage to be gained by this radical change in the treatment of the puerperium? Most women after their confinement had during a normal puerperium a feeling of well-being, and it did seem hard to condemn them to ten days or even three weeks of absolute confinement to bed; it savoured rather of punishment for becoming pregnant than of reward for replenishing the earth. Labour was not a disease; the puerperium could not be considered a convalescence; it was merely a natural return of the parts connected with pregnancy to their normal condition, in which was mainly concerned the involution of the uterus and the readjustment of the pelvi-abdominal circulation. Involution was influenced probably by the circulation and was mainly directed by a nervous mechanism which was chiefly sympathetic in nature. The pelvi-abdominal circulation was mostly affected after labour by intra-abdominal pressure and in the fall of pressure after labour the veins were much distended. Exercise of the abdominal muscles would improve their tone, accelerate the abdominal circulation, and diminish constipation. The pathological complications might be classed under four heads: septic inflammation, uterine displacements, subinvolution, and venous derangements. Septic inflammation could not be caused by the position of the patient; but if it had occurred then more free drainage of the genital tract acquired by the upright posture must necessarily be of advantage in facilitating the discharge of the infected lochia. Several patients during their first day's exercise expelled large clots which would have remained as possible media of septic incubation. Involution could only be effected slightly by the position and it was reasonable to suppose that the improved abdominal circulation would act in a salutary manner. Uterine displacements were affected by position, as when lying on the back the weight of the uterus must stretch the round ligaments and predispose to retroversion. The erect posture tended, on the other hand, to accentuate the normal forward inclination of the fundus by pressing it downwards on the pubes. Venous derangements, especially of phlebitis and embolism, were dreaded as a result of early rising, these occurring mostly after the tenth day. The blood of a puerperal woman was highly fibrinous and to prevent coagulation the circulation should be stimulated. This was most readily done by muscular exertion, by the use of abdominal and leg muscles, which would reduce the dilatation of the veins and improve the sluggish circulation. Maintenance of rest for ten days led to general muscular atony and debility; by rising on the third day there was little loss of general muscular power and constipation was strikingly diminished. It was difficult to understand why women should have been condemned for thousands of years to so much enforced idleness. In primitive races it did not exist. It seemed to have resulted from the religious practice of the ordeal of purification.

Dr. J. HAIG FERGUSON said he was not quite convinced by the very plausible arguments in the paper. In America it was found that there was deterioration of the white women compared with the squaws; these latter would fall out on the march, give birth to a child, and resume march on the same day. The white women had more sense. The native women suffered more from displacements and grow old very soon. He agreed with the principles in the paper to a certain extent. He considered the chief use of the binder was to fix the loose joints in the pelvis after labour.

Dr. A. H. F. BARBOUR considered the paper of general interest and revolutionary. The subject was introduced by Küstner 11 years ago, giving the results of 1000 cases, but was dropped, and it had again been brought forward within the last two years, the principles being applied both to the puerperal patient and to treatment after operations. Such treatment helped the general condition, the patient acquired more confidence, took her food better, and thus improved. But the local results were not so satisfactory. It was not proved that involution was favoured nor that the lochia were improved, and the question of backward displacement was very important. In the most recent paper 16 out of 46 had a retroversion or retroflexion afterwards. One must remember that if they were even up eight hours, still they were resting the other 16 hours in bed. Three classes of patients must be considered in this question. First, the labouring class in the Maternity; such treatment was the best thing for them, because they could be watched in the ward; it was more pleasant and comfortable for them. A second class was the working woman in her own house; it was best to keep her in bed to prevent her doing house-work. The third class of better patients, who in the development of civilisation were certainly not primitive, were best kept in bed for rest and to keep them out of the interests of life.

Dr. J. LAMOND LACKIE could endorse practically all that Dr. Haultain mentioned in his paper, having assisted at the Maternity during the same period. All the multiparæ declared themselves much better than in their previous labours. The treatment was not carried out in severe forceps or abnormal cases, only in simple ordinary cases or easy forceps, but even cases with a slight tear were allowed up. He found great difficulty in introducing this treatment into private practice, the greatest obstructionist being the nurse, as her term of service would be curtailed.

Dr. J. W. BALLANTYNE believed it would introduce a new element of danger in a ward, as a patient might thus spread infection if she had any about her. Küstner's paper 11 years ago was buried by Olshausen's disparaging criticism. Müllerheim, out of 1000 cases, found late developments in a large proportion both of displacements and discharge. Fromme had a first death from embolism early in puerperium during this treatment. The advocates of this early rising claim diminished risk of embolism. Wagener and Gellhorn quoted their experience of Javanese women, who were compelled by a custom to rise for a short time on the first day and move about the house, that among these women prolapse was exceedingly common and embolism frequent. Dr.

Ballantyne believed in a modified adaptation of the treatment.

Dr. W. FORDYCE considered that the results could not be estimated after 10 days. He did not consider Dr. Haultain's physics of the pelvis correct in the production of prolapse. The paper was too severe on the moderate conduct of the puerperium.

Dr. D. E. DICKSON (Lochgelly) said he practised among a population of hard-working women. There were two classes, one which looked upon their confinement as their annual ten days' holiday, and the other class who grudged a few days from their household duties and who usually got up on the third day and did a little household work, and did it all on the tenth day. The results of all these cases were good, as out of 1200 cases he had few displacements or bad sequelæ.

Dr. HAULTAIN, in reply, said there was no hustling with these patients; he asked them first if they wished to get up, both in maternity and private practice. He had examined 43 cases after six weeks and found two displacements. He believed quick rising favoured involution. He had written to medical men at work among the natives of Central Africa, India, and America, and had obtained favourable answers as to this practice among these women. He found that it was usually the mother of the puerpera who objected, not the patient herself.

Dr. JAMES YOUNG gave a lantern demonstration on the Minute Anatomy of the Pregnant Tube, as illustrated by five cases. In one case of a two months' gestation the ovum had developed in the posterior wall of the tube, the anterior wall not being involved, and the fimbriæ were retracted; there was well-marked decidual formation in the tubal folds throughout the entire length of the tube. In another case the ovum was surrounded by a blood mole; this blood was entirely extra-chorionic and contained only a few fœtal blood cells. The villi were degenerated but where their tips projected into fluid blood they were well nourished, showing the parasitic nature of the villi and throwing light on the possibility of growth of the placenta after the death of the fœtus. The retraction of the tubal fimbriæ was explained by an over-riding of the mucous and inner coat of muscle over the rest of the tube wall, leading to a withdrawal of the fimbriæ within the tube lumen.

Reviews and Notices of Books.

The Making of Species. By DOUGLAS DEWAR, B.A. Cantab., F.Z.S.; and FRANK FINN, B.A. Oxon., F.Z.S., M.B.O.U. With 15 illustrations. London: John Lane; New York: John Lane Company. 1909. Pp. 400. Price 7*s.* 6*d.*

THIS is a very interesting book, and we may start by recommending the reading of it to medical men as an excellent way of making themselves familiar with the modern position of biology. It is simply and clearly written, the material is well arranged, and the illustrations, which are quite good, also display the points which they are intended to illustrate—a thing which does not invariably occur in popular books of science. For although Mr. Douglas Dewar and Mr. Frank Finn have written a book which shows them to be not only tried and successful zoologists but close students of the best scientific literature, their joint work falls under the title of popular. It is not a book to which Professor De Vries, Professor Bateson, Mr. Frank Darwin, Mr. Karl Pearson, Mr. Frank Beddard, and other leaders of biological science will go for light and leading; it is rather a book which explains the tenets of the various schools of biology, the theories put forward by the leaders of those schools, and the work which has been done or which has been attempted by those who are supporting one or other theory. We have here definitions—which in all their details may not quite be acquiesced in by the different persons whose work is thus categorised—of the Darwinians, Lamarckians, the Neo-Darwinians, the Neo-Lamarckians, the Wallaceites, and the Mendelians. The salient doctrines of these schools are fairly set out, and the places where the particular schemes of biological thought can be found either to explain or to leave unexplained the phenomena of natural history are indicated in plain language, and even a little aggressively. But the attitude adopted by the authors is consistent throughout and justified by the last sentence of the book, which is as follows: "The future of biology is largely in the hands of the practical breeder." For that is the message which they mean to convey.

Mr. Dewar, an Indian civil servant, has already shown himself in his writings to be an authority on ornithology, while Mr. Frank Finn, whose work has also lain largely in the realms of ornithology, has held a position in the Natural History Museum of Calcutta. It is natural, therefore, that a good many of their personal observations should deal with tropical birds, and throughout the book many of the examples given of inheritance, colouration, and the signs and symptoms of variation and hybridism are drawn from bird life. We think it possible that, although the authors are obviously close students of biology generally, they have not given the same attention to the work of the Mendelians—albeit this work is distinctly in support of the practical breeder—that they have given to the life-history of birds. The value and importance of Mendelism may, as they suggest, have been exaggerated, but it is rash to set limits to work the scope of which is increasing almost daily. But the net result of the book is to suggest that natural selection has been worked too hard, especially by Mr. A. R. Wallace, who has attempted to explain too much under this head, and, like his immediate followers, has not given sufficient credit to other possible factors in the creation of new species. In this connexion a happy comparison is made of natural selection to a competitive examination in which it is suggested that natural selection, while tending to diminish the number of species which might arise from mutation by weeding out many mutants, does not of itself make new species, which rather originate in accordance with the laws of variation. "Variation brings into being mutants, which are incipient species, but variation cannot determine their survival. It is at this stage that natural selection steps in. But because natural selection allows certain mutations to persist, it is not correct to say that natural selection has caused these mutations or made or originated the species to which they give rise." Upon this view it follows that, in the authors' opinion, while natural selection counts for much, and while its influence on mutations should be frequently capable of simple explanation, we are still far from any real knowledge of evolution as a whole. It is necessary that we should know much more of the causes of variation and mutation than we know yet. To the observation and experiments of the practical breeder the authors combine to look for progress in this direction, and we think that they will find more men of science than they appear to imagine holding the same view as themselves, but certainly with one addition—namely, that the results of biological chemistry must be brought more into line with evolutionary research than is the case as yet.

A great deal of the ground in this book appears to have been covered by Professor Arthur Thomson in his excellent work "Heredity." The authors, whose reference to the labours of other writers is very full and generous, constantly refer to Professor Thomson's manual.

By What Authority? The Principles in Common and at Issue in the Reports of the Poor-law Commission. By JOHN H. MUIRHEAD, LL.D., Professor of Philosophy at the University of Birmingham. With an Introduction by Sir OLIVER LODGE, LL.D., F.R.S. London: P. S. King and Son. 1909. Pp. 90. Price 2*s.* net.

THIS is a reprint of a series of articles in the *Birmingham Daily Post*, written just after the issue of the Report.

The intellectual position of the author is sufficient guarantee of the value of the thought and the quality of the form, while additional force is afforded by the fact that Professor Ashley, one of the highest authorities on economics in the English-speaking world, has revised the proofs and made various alterations in the text. The articles do not deal with the whole contents of the Report, and they avowedly leave untouched the question of medical aid with which our readers are now familiar. Practically they are limited to the economic aspects of the Report, and especially to that part which deals with the question of unemployment, which Professor Muirhead describes as the kernel of the whole. To this side of the subject these articles form an admirable introduction, which can be commended to the many members of our profession who are seeking to formulate their ideas. The lucidity of Professor Muirhead's style and his detachment from party politics are marked throughout his pages.

In a short introductory chapter, published before the Reports of the Commission appeared, a sketch is given of the object and effects of the "New Poor-law" of 1834. Here the aim was to satisfy the claim of humanity that persons who are unable to support themselves should not be left to starve, but also "to secure that there should be sufficient in the conditions of acceptance of Poor-law assistance to deter unnecessary resort to it." The position of the pauper was to be less pleasant than that of other labourers, however poor. This principle has been persistently assailed by modern social reformers, and is entirely jettisoned by the latest Commissioners. In his consideration of the effects of the "New Poor-law" Professor Muirhead is kinder than most critics, who have recently ascribed a deliberate malignancy to the framers of the Act, as if they had foreseen all its difficulties and shortcomings, and intentionally fostered them. On the contrary, it is claimed here that a considerable part of the admitted amelioration in the condition of the working-classes is due indirectly to the Poor-law: a view with which we are very much in accord.

Both Reports of the recent Commission, it will be remembered, unite in condemning the mixed workhouse. The description of the social life of even the best of these institutions, as depicted in the Minority Report, may be sensational and in certain details open to cavil, but in substance it is unquestionably true. It is doubtful if the attack of the same group of Commissioners on the administration of outdoor relief is of equal validity; their criticisms might be applied in similar terms to the Old Age Pensions. The author, being a Birmingham man, of a city where civic and social organisation is very complete and where conventional methods of administration are not over-regarded, thinks the pictures of outdoor relief and its evils are too dark and that valuable work might still be done under the existing *régime* of the Poor-law by capable administration. His comments here form a thoughtful indictment of the Minority document which postulates the abolition of the present law, and we recommend our readers to make an opportunity for reading his words.

Coming to the chapters on unemployment, we are confronted with the causes of pauperism. Old age is the most important. The principal factors in lowering the age of wage-earning are the speeding up of modern machinery and the effect of trade union regulations. Recent legislation has undoubtedly had a bad effect also. The Minority Report examines this question carefully, and concludes that the tendency on the part of unions and employers to discard elderly workmen is unsound, and the conclusion is supported by Sir George Livesey. Chronic sickness is also an efficient cause of pauperism, and in particular tuberculosis and alcoholism. The remedies for unemployment as analysed by Professor Muirhead are decidedly disappointing, chiefly resolving themselves into the erection of labour bureaux and more stringent control of boy labour. But we are not prepared to take the dark view that such helplessness implies. Recent general improvements in public health, by alleviating the sickness which has just been alluded to as a principal factor in the pauperism due to unemployment, will, we believe, make their influence felt quite soon in a forcible manner.

LIBRARY TABLE.

A Manual of Minor Surgery and Bandaging (Heath), for the Use of House Surgeons, Dressers, and Junior Practitioners. By BILTON POLLARD, F.R.C.S. Eng., Surgeon to University College Hospital. Fourteenth edition. London: J. and A. Churchill. Pp. 488. Price 7*s.* 6*d.* net.—For 50 years fresh editions of "Heath's Minor Surgery and Bandaging" have been published with a regularity which indicates a steady demand and a uniform welcome on the part of generations of house surgeons and dressers. To state that this volume is the fourteenth edition is in itself an appreciative notice sufficient for the reputation of most books. But though the original character of this manual has been maintained, and much of its language comes back to our memory like verses from the classics, yet Mr. Pollard has amplified and modernised the whole text, while Dr. Dudley W. Buxton contributes a carefully written chapter on the administration of anæsthetics. The volume is about double the size of Mr. Heath's original book, and the real difficulty in arranging such a manual so as to reject the non-essential has now become very difficult. That modern methods are represented in its pages is shown by the good accounts of spinal analgesia, and of von Bier's treatment of infective processes of joints and tendon sheaths by artificial hyperæmia. Mr. Pollard might have given a little more space to the details of operations for adenoids considering their numerical importance. A certain lack of order and cohesion in the arrangement of subjects is a heritage from the original edition and is to some extent unavoidable, while an excellent index makes it less important than it might have been. The print and get-up are excellent and the price is moderate, for there are over 250 illustrations of good quality. We can confidently advise the modern dresser to invest in "Bilton Pollard's Heath."

Notes from a Knapsack. By GEORGE E. WHERRY, M.A., M.C. Cantab., F.R.C.S. Eng. Cambridge: Bowes and Bowes. 1909. Pp. 312.—This is a collection of desultory papers republished from various sources, including our own columns. One or two of the articles have a surgical basis, but the author obtrudes his profession little, and these might almost with advantage have been omitted. There is a paper on the Oriental Mystery of Tongue Swallowing, but it throws no new light on a very doubtful array of statements. Most of this little volume consists of pleasant gossip, with a strong archæological leaning, describing walks in England and Switzerland. Besides his knapsack, the author carried an observant eye and a mind stored by years of varied reading. Something in the flavour of the writing recalls the English essayists of the early nineteenth century, who were all great walkers; and it is impossible to avoid the thought that walking, for walking's sake, produced mental attributes which are rarer now.

Notes and Thoughts from Practice. By W. J. TYSON, M.D. Durh., F.R.C.P. Lond., F.R.C.S. Eng., Honorary Physician, Victoria Hospital, Folkestone. London: John Bale, Sons, and Danielsson, Limited. 1909. Pp. 95. Price 2*s.* net.—This little volume is a collection of rambling notes and impressions which scarcely merit the form of a complete volume, though they would have been acceptable in the pages of a magazine. For there is much that is thoughtful

and useful in Dr. Tyson's notes, but they are sometimes too familiar. The page on the danger of putting old people to bed is excellent for example, but surely the danger is well recognised. "Some Thoughts on Cases resembling Typhoid Fever" are suggestive, but they might with advantage go further afield and raise distinctions between true enteric fever and paratyphoid fever, and between ptomaine intoxications and bacillary cultivations in the intestine. "Foreign bodies in the eye are very common in Folkestone," says Dr. Tyson so, we believe, they are in all other towns. Such accidents are peculiarly common in the centres of engineering where steel lathes and other machine tools are employed, but surely not in Folkestone. Dr. Tyson quarrels with the ophthalmic teaching at our medical schools, and claims that it is too minute and specialised, and deals too much with the rarer conditions of the eye to the exclusion of the commoner ones. But it must be remembered that the teaching of ophthalmology, like other forms of teaching, is, or should be, an education, and that a student who is carefully taught to recognise the features of a rare or obscure eye condition is in a position to recognise a common or simple one; moreover, the failure to recognise dangerous and rare conditions of the eye causes more disaster to patients than do errors in any other department of medicine. Among the most interesting parts of the book are the remarks on appendicitis, the plea for the extension of local anæsthetics, and the notes on pneumonia and the soporific action of mercury.

Hernia: Its Etiology, Symptoms, and Treatment. By W. MCADAM ECCLES, M.S. Lond., F.R.C.S. Eng., Assistant Surgeon to, and Demonstrator of Operative Surgery at, St. Bartholomew's Hospital, &c. Third Edition. London: Baillière, Tindall, and Cox. 1908.—This edition differs but little from earlier issues, and it is only necessary to say that it is the best practical book on the diagnosis and treatment of hernia suitable for the general practitioner. Many students when they pass their final examinations know all about the rare varieties of hernia, and the various methods of radical cure, but they are often unable to adjust a truss or to advise whether a truss should be employed or an operation be performed. This is exactly the book that will enable them, when in practice, to make up these deficiencies. The author almost apologises in his preface for saying so much about the non-operative treatment of hernia, but this is the very part of the treatment that is most required in text-books intended for those in general practice.

McQueen's Private Account Book. Arranged for one year's use, may be commenced at any time. For Country or City Gentlemen. Leicester: J. McQueen and Co. Price 10*s.*, post paid.—Medical men are generally not good men of business, and much of this is due to their want of knowledge of the method of keeping accurate accounts. Many of them manage more or less satisfactorily to keep the accounts of the practice, but private accounts are of almost equal importance if a practitioner is to know where he stands financially. This account-book should prove of real advantage to medical men, for it is admirably arranged, so that it is possible to see at any moment the exact financial position. The records for income discriminate between that from the profession, that from dividends, and that from other sources, and the expenditure is also divided up into several sections, such as household, servants, subscriptions, and professional payments. For every month there is a summary and a record of the condition of the bank account. A useful section is that of professional profit and loss account and income-tax statement. We commend the book to the notice of our readers.

The Annual Charities Register and Digest. 1909. London: Longmans, Green, and Co., and the Charity Organisation Society. Pp. cccliv.–696. Price 5*s.*——*The Year Book of the Scientific and Learned Societies of Great Britain and Ireland.* London: Charles Griffin and Co. Pp. 352. Price 7*s.* 6*d.*——*The Public Schools Year Book.* London: Swan Sonnenschein and Co. Pp. 717. Price 3*s.* 6*d.*——*The Girls' School Year Book.* Same publishers. Pp. 594. Price 2*s.* 6*d.* net.——*The Englishwoman's Year Book.* London: A. and C. Black. Pp. 372. Price 2*s.* 6*d.* net.—To review or summarise year books is impossible, and the best thing we can do is to refer our readers who may require trustworthy information upon the charities, or the learned societies, or the public schools, or the occupations open to women in the United Kingdom to the pages of one or other of the books themselves. In the first of these volumes Mr. C. S. Loch's introduction on "How to Help Cases of Distress" is, as he claims, a reference book in itself, and not the least convenient part of it is the legal information concerning the Poor-law which it includes. The motto of Mr. Loch's society might almost be taken from the opening paragraph of one of the sections of this introduction. "Generally speaking, the test of the usefulness of charitable institutions is, whether or not they produce self-help in the recipients of their bounties and in the people at large." There follow a series of 16 articles on special branches of charitable work, of which Dr. T. N. Kelynack contributes two on the Arrest of Tuberculosis and the Care and Control of the Inebriate, whilst Dr. H. Rayner writes on Lunatics, Idiots, and Imbeciles. A review of the past year's charitable work is then given, followed by an account of the Charity Organisation Society, the rest of a bulky volume being made up of summarised information returned by all classes of reputable charities, which are classified according to their respective objects. In the main care and discrimination have been exercised in the choice of the institutions to be mentioned, and the eighteenth edition of the work will be found indispensable to all interested in the palliation and reform of many social evils.—Of the other books before us *The Year Book of the Scientific and Learned Societies of Great Britain and Ireland* contains a record of the work done by those bodies during the session 1907–08, including lists of papers reported in their proceedings and information concerning their objects and officials. The book is complete enough to include the medical societies attached to the various metropolitan and provincial hospitals.—*The Public Schools Year Book* contains particulars of the arrangements and teaching staffs of nearly 120 schools administered by governing bodies and forms a trustworthy guide for parents able and desirous to do the best by their sons. We note that it has been adopted as the official reference book of the Headmasters' Conference.—*The Girls' School Year Book* is a companion volume dealing in a like manner with the secondary education of girls in this country.—*The Englishwoman's Year Book* is a compendium of information dealing with all the activities of the woman of to-day, advising her on the choice of a profession or occupation, giving her information on the educational facilities at her disposal, and on the laws, the charities, and the institutions especially concerned in her interests. In discussing the profession of medicine for women the remarks of Dr. May Thorne on Medical Women and their Prospects at a conference held last year are quoted. They strike us as a fair statement of the position, although perhaps not very encouraging for the medical woman of average ability and without capital or influence. The same section includes a list of women practitioners of medicine.

JOURNALS AND MAGAZINES.

Journal of Anatomy and Physiology. Conducted by Sir WILLIAM TURNER, K.C.B.; ALEXANDER MACALISTER, University of Cambridge; ARTHUR THOMSON, University of Oxford; ARTHUR KEITH, Royal College of Surgeons of England; and in this number by the late D. J. CUNNINGHAM, University of Edinburgh. Vol. XLIII., Third Series, Vol. IV., Part 4, July, 1909. London: Charles Griffin and Company. Annual subscription, 21*s.*—The contents of this number are: 1. The Topography and Morphology of the Human Hyoid, by F. G. Parsons, F.R.C.S. Eng. Amongst other features the author describes a curved bar on the anterior surface of the body joining the two lesser cornua and apparently corresponding to the basal part of the second visceral arch, and observes that the chondroglossus is a constant muscle and that the inferior lingualis does not arise from the hyoid; that the lesser cornua do not ossify until the fourteenth year, and never form synovial joints with the body of the hyoid, though they often do so with the greater cornua. The article is illustrated with eight drawings in the text. 2. The Arrangement of the Papillary Ridges on the Human Hand and Foot, by Walter Kidd, M.D. Lond., F.R.S.E., F.Z.S., with three illustrations in the text. 3. Abnormal Position of the Heart and Great Blood-vessels, associated with Transposition of the Viscera, by Adrian Stokes, B.A. Trinity College, Dublin, with three figures in the text. 4. A Note on a Large Intra-abdominal Pelvic Colon and on the Etiology of Peritoneal Adhesions, by Douglas G. Reid, M.B. Edin., demonstrator of anatomy in the University of Cambridge (Trinity College). 5. Note on an Anomalous Anastomosis between the Internal Carotid and Basilar Arteries, by G. Elliot Smith, M.A. Cantab., M.D. Syd., F.R.S., Cairo, with a figure in the text. 6. A Gland upon the Ear-conch of Dasyurus Maugei, by R. H. Burne, M.A., assistant conservator, Royal College of Surgeons of England, with three drawings in the text. 7. A Contribution to the Development of the Prostate in Man, by Evelyn John Evatt, University College, Cardiff, with eight illustrations. 8. Two Abnormal Sterna in Living Subjects, by Professor A. M. Paterson, Liverpool, with two figures in the text. 9. A case of Abnormal Right Subclavian Artery, by E. L. Pearce Gould, B.A., with three figures in the text. 10. A Contribution to the Histology of the Human Osseous and Membranous Labyrinth, by Sidney Scott, M.S. Lond., F.R.C.S. Eng., with 21 highly creditable illustrations. 11. A Liver exhibiting Multiple Anomalies, by E. Barclay-Smith, M.D. Cantab., with an illustration. Lastly, there are two Anatomical Notes, one by Mr. N. Bishop Harman, on Spectacles for Fine Dissections, and one on a case of Hernia of the Adipose Capsule of the Kidney, by D. G. Reid, M.B. Edin. The number contains in addition the Index of Vol. LXIII., the Title, and Table of Contents.

Heart: A Journal for the Study of the Circulation. Edited by THOMAS LEWIS, M.D. Lond. Vol. I., No. 1. London: Shaw and Sons. 1909. Subscription price per volume 20*s.*, single numbers 5*s.* 6*d.* each.—We have already published an annotation welcoming the appearance of this the first number of *Heart*, giving brief notices of the papers contained in it, and referring to the prefatory note contributed by Dr. W. H. Gaskell and to the editorial preface. The papers contained in this number are: 1. The Irregularities of the Mammalian Heart observed under Aconitine and on Electrical Stimulation, by Arthur R. Cushny. An interesting analysis of the various irregularities induced by aconitine is given. These comprise reversal of the rhythm, a condition in which the impulse to contraction is generated in the ventricle and spreads up to the auricle; irregularities from impairment of conduction in the auriculo-ventricular bundle leading to partial or complete block in either direction—viz., from auricle to ventricle or *vice versâ* in reversed rhythm; alternation in strength of the contractions; extra-systoles in auricle or ventricle, sometimes occurring at regular intervals and producing the condition of "continuous bigeminus" described by Hering; and sudden changes in the rhythm of the whole heart. These effects are attributed to the aconitine retarding the recuperation of the contractile and conductive power, while it increases the tendency to spontaneous movement—i.e., it increases irritability. Some irregularities induced by electrical stimulation of unpoisoned hearts are also described. 2. Nodal Bradycardia, by James Mackenzie. From a study of the venous pulse Dr. Mackenzie has demonstrated a disturbance of the cardiac rhythm in which the auricle no longer contracts at its normal place in the cardiac cycle. He has brought forward evidence that the stimulus to contraction originates in these cases in a situation other than the normal, and he suggests that this may be the node from which the auriculo-ventricular bundle runs. He has therefore termed this condition "nodal rhythm." In most cases the nodal rhythm is associated with an increased rate of beat, but in this paper a condition of bradycardia is described which is believed to be related to the nodal rhythm and which is differentiated from heart block. Dr. Mackenzie gives illustrative cases, in some of which epileptic manifestations occurred. 3. Paroxysmal Tachycardia, by Thomas Lewis. An interesting study of this obscure condition is given, with detailed instrumental records of one case and descriptions of others. Two forms are differentiated, one an auricular form in which the sequence of contraction in the chambers is normal, and the other in which the auricle does not contract at its usual position in the cycle. In the auricular form, with which Dr. Lewis chiefly deals, the rhythm of the paroxysm is described as being *sui generis* and differing from that in the intervals between the paroxysms. Although extra-systoles may occur in this form they are not regarded as the basis of the paroxysm. Evidence is brought forward which tends to show that the paroxysm is due to intrinsic changes within the heart rather than to disturbed central innervation. A ventricular form of paroxysmal tachycardia can be produced in animals by ligation of the right coronary artery. 4. The Measurement of the Systolic Blood Pressure in Man, by Leonard Hill, with the coöperation of Martin Flack and W. W. Holtzmann. This paper contains a record of further work concerning the vexed question as to whether the rigidity of the arterial wall may be a source of error in observations made by instruments of the Riva Rocci and Hill and Barnard type. Dr. Hill concludes that there is no evidence that the resistance of the arterial wall to compression affects the systolic index of blood pressure, but he finds that the relative softness or hardness of the arterial walls affects the "conductance" of the systolic wave markedly and so modifies the readings. The arm and leg readings are the same in young men when quiet and in the horizontal posture. The arm and leg readings differ after the violent exercise of stair-climbing and in aortic cases. A difference between arm and leg readings is most marked in all cases of aortic regurgitation, and when such patients are lying quiet in bed this difference is a diagnostic sign of aortic regurgitation.

The Bio-chemical Journal. Edited by BENJAMIN MOORE, M.A., D.Sc., and EDWARD WHITLEY, M.A. Vol. IV., Nos. 3, 4, 5, 6, and 7. April 26th and July 2nd, 1909. Liverpool: Johnston Laboratories. Price 15*s.* per volume of 480 pages.—These numbers of the *Bio-chemical Journal* contain several articles of importance, amongst which we may notice that of Dr. E. W. Wace Carlier of Birmingham on allyl isothiocyanate, which he shows exerts in the rabbit a powerful depressor

effect on both the heart and the respiration very quickly after administration, the inspiratory efforts exceeding the expiratory, the effect with moderate doses soon passing off. This drug cannot be recommended for internal use. Dr. W. Webster of Manitoba treats of choline, and finds that none can be detected in normal blood and does not regard its presence in minute quantity in the cerebro-spinal fluid as indicative of degenerative changes in the nervous system. Dr. Karl H. van Norman of Toronto discusses the value of the biuret reaction in the recognition of protein, and points out that to obtain satisfactory results the solutions of albumin, copper sulphate, and sodium should be of definite strength, the best being albumin in distilled water 0·2 per cent., sodium hydrate 10 grammes to 100 cubic centimetres of water, and copper sulphate 5 grammes to 100 cubic centimetres of water. The limits of delicacy with both the biuret reaction and with cold nitric acid are given. Dr. Benjamin Moore, the Johnston Professor of Biochemistry in the University of Liverpool, and Mr. Edward Whitley, contribute an article on the properties and classification of the oxidising enzymes and analogies between enzymic activity and the effects of immune bodies and complements—a long and carefully drawn up article giving the results of many experiments. Dr. Hugh MacLean, Carnegie Research Fellow, of Aberdeen, gives an account of a mon-amino-diphosphatide lecithin-like body in egg yolk, and also gives the results of his investigation of the nitrogen-containing radicle of lecithin and other phosphatides. Dr. A. C. Hof, Höchst a. Main, states that iodo-eosin is a test for free alkali in dried-up plant tissues. Dr. Benjamin Moore and Dr. R. Stenhouse Williams describe the growth of the bacillus tuberculosis and other micro-organisms in different percentages of oxygen. Mr. A. E. Jessup, Mr. A. C. Jessup, Mr. E. C. C. Baly, F.R.S., Dr. F. W. Goodbody, and Mr. E. Prideaux contribute a joint article on the electrical forces of mitosis and the origin of cancer. G. C. Mathison, Sharpey scholar, contrasts the several methods of estimating the amount of phosphorus in urine, preferring Neumann's method as modified by Plimmer and Bayliss. Mr. R. A. Robertson, Dr. James Colquhoun Irvine, D.Sc., and Miss Mildred E. Dobson, Carnegie scholar, contribute jointly an article on the polarimetric study of the sucroclastic enzymes in Beta Vulgaris. Dr. Ernest E. Glynn of Liverpool University and Mr. G. Lissant Cox supply some observations upon possible errors in the opsonic index.

Reports and Analytical Records
FROM
THE LANCET LABORATORY.

(1) MERCURETTES; (2) ADRENALIN PREPARATIONS; AND (3) PITUITRIN.

(PARKE, DAVIS AND CO., BEAK-STREET, REGENT-STREET, LONDON, W.)

1. Mercurettes offer a very convenient form to the physician for administering mercury by inunction. They consist of oblong blocks each containing 30 grains of very finely divided mercury incorporated with 60 grains of cocoa butter. Cocoa butter appears to be well adapted for the purpose as it is free from objectionable odour, its consistence is convenient, and it rarely becomes rancid. 2. Amongst new adrenalin preparations may be noted tablets containing 1-200th grain of the hæmostatic. It is said that a prompt physiological effect is obtained when one or more of the tablets are placed under the tongue, the drug being rapidly absorbed in that area. Tablets are also prepared containing adrenalin with the anæsthetic novocaine, a combination of obvious value in certain surgical operations. Again, adrenalin is combined with chloretone in a suppository, the result being a medicament possessing constringent, analgesic, and antiseptic properties which render the suppository valuable in rectal disorders. Another suppository contains, besides adrenalin, three grains of formidin (an iodine, salicylic acid, and formaldehyde compound), three-quarters of a grain of cocaine hydrochloride, and three grains of extract of hamamelis. The formula is an excellent one, having regard to the effectual germicide (formidin) present, the analgesic (cocaine), and the tonic astringent (hamamelis). 3. The extract of the pituitary gland behaves like adrenalin, but its vaso-motor constrictor action is more prolonged, while its influence on the circulatory system is similar to that of digitalis and strophanthus. The dose of pituitrin orally or hypodermically is from 10 to 30 minims four times daily.

DIAMALT EXTRACT WITH COD LIVER OIL.

(THE BRITISH DIAMALT COMPANY, 11 AND 13, SOUTHWARK-STREET, LONDON, S.E.)

We have already remarked upon the high diastasic value of this company's malt extract. According to our experiments diamalt digests nearly seven times its weight of starch at body temperature and as much as 13 times its weight of starch at higher temperatures. It is therefore not surprising that diamalt blends perfectly with a high percentage of cod-liver oil. Samples recently submitted to us yielded respectively 17·00 and 33·73 per cent. by weight of cod-liver oil. The excellence of the malt extract adds not a little to the palatability of the compound in spite of the oil. Altogether these preparations may be regarded as the standard of a malt and cod-liver oil combination.

ANTISEPTIFORM No. 2.

(CORBYN, STACEY, AND CO., LIMITED, BRUNTON'S WHARF, 673, COMMERCIAL-ROAD EAST, LONDON, E.)

Antiseptiform No. 2 affords an ingenious and convenient method of obtaining formaldehyde gas for the purpose of disinfection. It consists of a mass of soap saturated with methyl alcohol, and at ordinary temperatures the mixture is solid. On applying a light to the mixture contained in a tin the alcohol ignites. Next, a disc of platinised asbestos gauze is held over the flame until hot, and then pressed down upon it. The flame is extinguished and the vapours are acted upon by the spongy platinum—that is to say, a continuous current of formaldehyde gas is given off by the partial oxidation of the methyl alcohol. According to a bacteriological report before us the method can be effectually applied to the disinfection of rooms.

SOLOID PRODUCTS FOR IONIC MEDICATION.

(MESSRS. BURROUGHS, WELLCOME AND CO., SNOW HILL BUILDINGS, LONDON, E.C.)

We have received examples of soloid products which are convenient for the application of drugs by cataphoresis, or, to use the modern expression, ionic medication. Each soloid when dissolved in a fluid ounce of water gives a 1 per cent. solution of the drug—that is to say, each product contains 4·37 grains of the drug. Amongst the ionic soloids submitted to us were sodium chloride, zinc sulphate, and potassium iodide, but others are prepared. The ionic soloid offers the important advantage of presenting a drug in a pure state, judging from the results of our examination.

RHINOCULIN CREAM.

(SCHACHT WARNER AND CO., 55, FORE-STREET, LONDON, E.C.)

Any preparation which is calculated to relieve the distressing disorder known as hay fever would be welcomed by a number of sufferers. Such a property is claimed for rhinoculin cream, which is prepared after the formula of a physician in Germany. The favourable results which are

recorded of its use in hay fever appear to be due first to the selection of a pure fatty basis which provides against the penetration of pollen into the mucous membrane and, secondly, to the employment of a non-poisonous local anæsthetic.

GLIDINE PREPARATIONS.

(MENLEY AND JAMES, LIMITED, MENLEY HOUSE, FARRINGDON-ROAD, LONDON, E.C.)

We have already referred in these columns to glidine, which is an interesting vegetable protein food resembling, as we pointed out, the gluten of wheat flour. We also mentioned a compound of glidine with iodine which suggested a means of administering iodine with advantage over the ordinary iodides. We have now received further glidine compounds containing the elements bromine, iron, mercury, and arsenic, known respectively as bromoglidine, ferroglidine, luesan, and arsan. According to some literature before us these somewhat remarkable preparations deserve attention, inasmuch as glidine appears to offer an excellent and effective way of administering the various elements indicated. The fact that these elements have been combined with such an innocent substance as wheat gluten is alone important.

PURE RECTIFIED SPIRIT.

(THE POLISH POTATO GROWERS' AND DISTILLERS' ASSOCIATION AND THE WARSAW RECTIFYING COMPANY. REPRESENTATIVE FOR THE UNITED KINGDOM, J. JANASZ, 9, PERCY-ROAD, BOSCOMBE, HANTS.)

We have not examined a purer specimen of ethyl alcohol than the one prepared by the above commercial associations. It is well known that alcohol obtained from potato starch by careful fermentation, distillation, and rectification yields the best results as regards purity and palatability. Alcohol derived from sugar and grain invariably contains traces of impurities which give a pronounced and often objectionable character to the taste. Beet spirit, in fact, has been known to contain a base of the nature of an alkaloid. It appears that in Poland the production of grain spirit cannot compete with that of potato spirit owing to the latter being considerably cheaper to distil in that country than the former. According to our analysis the spirit is not far off being absolute alcohol. The actual figures obtained were: alcohol, by weight 95·57 per cent., by volume 97·20 per cent. On examining the spirit for the common impurities of ordinary spirit practically nothing of the kind was found. It contained the merest trace of aldehyde, absolutely no furfural, and no higher alcohols of which amylic alcohol or fusel oil is the type. The absence of any odour or flavour apart from that of pure alcohol is remarkable, and the product is what distillers call an exceedingly "clean" spirit. In these circumstances the adaptability of such a pure spirit for medicinal and pharmaceutical purposes must be conceded. For analytical and research work also no purer alcohol can be obtained.

HYGEIA MINERAL WATER.

(THE ILKLEY BREWERY AND AERATED WATER CO., LIMITED, ILKLEY.)

This water is marked by its peculiarly palatable quality; it is fresh to the taste. According to our analysis it exhibits an alkalinity equal to about five grains of bicarbonate of soda per pint. It contains, however, besides bicarbonate of soda, the bicarbonates of the alkaline earths, magnesia and lime. Organically the water is pure.

COCOA AND CHOCOLATE.

(THE MAZAWATTEE TEA COMPANY, LIMITED, TOWER HILL, LONDON, E.C.)

Two specimens of cocoa were examined and the results showed a reduction in the amount of fat consistent with the digestibility of the products, while there was no evidence of the presence of added alkali. The total fat in the cocoa essence amounted to 33·00 per cent. and in the cocoa to 34·5 per cent. The mineral matter in the former was 5·70 per cent. and in the latter 5·50 per cent., while the alkalinity of the ash calculated as potash (K_2O) was 3·60 per cent. and 3·70 per cent. respectively. These results, coupled with the excellent flavour of the infusion, indicate the selection of a cocoa of high quality and the adoption of satisfactory methods of manufacture. Amongst the samples sent to us were also milk chocolate and some creams, both again evidencing the use of high grade cocoa in their preparation.

ENGLISH CREAM.

(H. FRANCIS AND SON, 11, ARTHUR-STREET WEST, LONDON BRIDGE, E.C.)

The cream was contained in an air-tight tin, and on opening was found to be in a sound condition and uniform in quality. Considering that the cream had been sterilised the flavour was very satisfactory and approaching that of ordinary fresh cream. Analysis gave the following results: moisture, 63·75 per cent.; fat, 30·29 per cent.; curd and sugar, 5·58 per cent.; and mineral matter, 0·38 per cent. In the cream, which is a thick cream, we could find no foreign substances present.

Looking Back.

FROM

THE LANCET, *SATURDAY*, July 30th, 1831.

DUTY ON FOREIGN BOOKS.

To the Editor of THE LANCET.

SIR,—I have read with much pleasure in a late number of the *Westminster Review*, that the French government has proposed to that of England, a mutual exchange of all literary works of merit which may appear in each country. It must be admitted that this is a liberal proposal; but it would be a much more generous policy to remove *in toto* the tax on foreign books. The medical profession is not the only one that would derive considerable advantage from such a measure; and if our government would abandon this onerous duty, it would facilitate very much the opportunities for procuring the best continental authors, and thereby contribute to what has been sneeringly but not inaptly called "the march of intellect." This tax upon knowledge affords but a paltry addition to the revenue, but it is yet extremely exorbitant when levied upon private individuals. A few weeks ago I returned from the continent, and brought with me several foreign books, a certain duty upon which I was of course prepared to expect; but when passing them through the Custom House, I was obliged to pay the extravagant tax of a shilling *per pound*. It is true that I had but seven shillings to pay, although I had several pounds weight more of foreign books, but I owed my escape either to the indifference or to the indulgence of the man who searched my trunks. He took out a French work on Hygiene, and an Italian one on medical jurisprudence, with two or three other small ones, and these altogether weighing seven pounds I was called on to pay seven shillings, which enhanced the original price of those books very much.

The plan of weighing is certainly a very ludicrous and barbarous mode of estimating the value of literature; for the more ponderous a book is, the more valuable and productive it is in the eyes of the Board of Customs. These censors never look at the *esprit* which a work contains, but at the quantity of paper or material in it; and the weight, but not the wit, of a book, is thus made the criterion of its utility.

This is something like a Dey of Algiers who made the length of an ambassador's beard the standard of his wisdom and intelligence.

By publishing the above you will afford a useful piece of information to those English students who are now on the continent, and who think, as I did, that they will have but threepence per pound to pay on the importation of foreign publications.

I am, Sir, yours, &c.,

July 21, 1831. VIATOR.

THE LANCET.

LONDON: SATURDAY, JULY 31, 1909.

The British Medical Association: The Presidential Address.

THE address delivered by Sir WILLIAM WHITLA at Belfast in his capacity as President of the British Medical Association, although it dealt incidentally with many men and things of local interest and importance, was yet in the main a careful and serious pronouncement upon questions of high public and professional significance in relation to the conduct of medical education. Sir WILLIAM WHITLA, in the researches which culminated last year in his Cavendish lecture on the Etiology of Tuberculosis, has given ample evidence of his abundant power to grasp the scientific aspects of a popular question, and hence, when he turns away from the histories of bygone worthies, or from the claims to consideration of the city and the university which he adorns by his presence and guides by his example, in order to address himself to the changes in the conduct of medical education which are called for by the progress of knowledge, he is entering upon a path in which he possesses unanswerable claims to be accepted as a guide. When he tells us that the first duty of every medical school or faculty is the establishment of a radical reform in the now accepted curriculum, under which "the brain of the student fails to expand in assimilative power with the growth of advancing science," he formulates an indictment of existing methods to which those who are now engaged in applying or in supporting them will certainly be required by public opinion to plead. When, also, he tells us that a considerable proportion of medical students, either after failing to pass in the preliminary subjects of physics, biology, and chemistry, or before presenting themselves to the examiners in anatomy and physiology, proceed to attend classes in advanced subjects, and to go into the wards with the earlier examinations still hanging over their heads, we can hardly dispute his conclusion that such a course of procedure must "paralyse their capacities for obtaining anything like an efficient training in the subjects whose practice is to become their ultimate life work." He declares, indeed, that "after more than a quarter of a century's experience as a hospital teacher and as an examiner, embracing a practical acquaintance with the working of three universities in the United Kingdom," he feels constrained to believe that, in respect of sending out men qualified immediately to enter upon the routine practice of their profession, we are, in some respects at least, behind the results obtainable in the old days of apprenticeship. Such a belief will not appear unreasonable if we remember the testimony borne by many great men, and conspicuously by Sir JAMES PAGET, with regard to the practical benefits which a well-guided system of apprenticeship was calculated to confer upon the pupils, more especially in the way of preparing them to engage usefully in the daily work of the profession, even though existing circumstances make a return to the system of apprenticeship well-nigh impossible.

If we compare the educational requirements of the present day with those of previous centuries or generations, we shall perhaps find reason to hope that the collective intellectual capacities of the human race are being gradually trained in the direction of an increasing competence to deal with the many new problems presented to them. Exceptional individuals may perhaps be disregarded, for they have arisen at all periods of history and have seldom been fully appreciated by their contemporaries. They supply standards to which it is conceivable that mankind may ultimately attain, but which have no immediate bearing upon practical questions. We discuss contemporary dramatists without comparing them with SHAKESPEARE, and contemporary physicists without comparing them with NEWTON. But we may justly compare the beginning of the twentieth century with the beginning of the eighteenth, and if we do so we shall hardly fail to observe evidences of progress which afford just ground for hopefulness concerning the future. The intellectual culture of QUEEN ANNE'S day was mainly through the elegant inaccuracies of the "humanities," and "exact" knowledge scarcely existed, save in the custody of a few geometricians. It was possible, of course, to verify a quotation; but "certainty" in the scientific sense of the word could scarcely be predicated of anything that was described as "learning," and close reasoning upon secure data was practically confined to the observatories of astronomers. There is no reason to suppose that the wits of the period, however brilliant, would have been capable of the minute examination of phenomena and of the sound judgments concerning causation which are daily accomplished by the men of science of our own time. In all probability the brain cells of the average man of education were deficient in directions in which they have since undergone some increase of development, and if this be so it is not unreasonable to assume that the educational methods which were sufficient for our ancestors are no longer calculated to produce the best attainable results in the cases of our descendants. The men of the present day, and of the days soon to follow, will be increasingly called upon to subdue the physical forces of nature to the service of their kind, and the mental faculties required for this purpose are of a different order, and must be called into activity in a different way, from those which would be concerned in furnishing a trope for Hudibras, or an appropriate classical quotation for a common room. It is true universally that "reading maketh a full man; conference a ready man; and writing an exact man;" but the qualities so described will be exercised about questions which were known to BACON, if at all, only through the inspiration of genius; and the faculties subordinate to them must now be developed in the manner best calculated to enable them to grapple with the new problems which all new knowledge is certain to bring in its train. The education of medical students should be systematically so directed as not only to supply them with the knowledge which they will be required to apply to purposes of

practical utility, but also so as to train the faculties of their minds in the directions most favourable to the forms of mental activity hereafter to be required from them. Precise scientific information, valuable or even invaluable as it must always be, is yet inferior in importance to the cultivation of the judgment in relation to the authenticity of statements, and in relation to the true nature and characters of phenomena.

The measure of reform suggested by Sir WILLIAM WHITLA is set forth at length in his address, and will demand the careful attention alike of the medical corporations and of the General Medical Council. He proposes to anticipate the hoped-for arrival of better science teaching in public schools by a "radical change in the method of teaching the entire group of preliminary and scientific subjects," and by a complete devotion of the later period of the curriculum to clinical work. An important report on science teaching in public schools has lately been drawn up by the science master to the Charterhouse, and has been issued in pamphlet form by the Board of Education; but it cannot be said to afford any substantial grounds for hope that the schools themselves will take any active part in the institution of necessary reforms, or will move in the matter otherwise than slowly, and under an amount of pressure from public opinion which has not yet been applied to them. The report is based upon the replies to a circular of inquiries framed by the author in conjunction with the officials of the Board of Education, and it is significant that, while only one of the schools applied to sent a definite refusal to afford the desired information, quite a large proportion of them left courteous inquiries from a Government department wholly unanswered, and were presumably unable to answer them in a satisfactory manner. In the case of another profession in which the proficiency of its members is a matter of imperial concern, and in which, as in that of medicine, such proficiency is largely dependent upon training in the principles of scientific thought and judgment, as well as upon an acquaintance with scientific facts and methods, in the case, that is, of the Royal Navy, it has been found imperatively necessary that the future officer should be caught young, and that his training, from the first moment when he begins to specialise, should be conducted on lines completely in harmony with the duties of his future calling. We confess to a great doubt whether more than a small proportion of the medical students of to-day have been so trained, before entering upon their special studies, as to bring to them minds which have assimilated the first principles of scientific teaching, and are prepared to the full extent of their several capacities to judge wisely of the relations between phenomena. If this be so, the task of the teachers of medicine and surgery is rendered unduly difficult by the imperfect receptivity of their pupils, and some at least of these pupils, if or when they ultimately make their way through the meshes of examinations, are practically certain to have much to learn at the bedside, and are at least likely, in the course of the process, to exemplify the maxim of political economy which teaches that all learners spoil a portion of the raw material which passes through their hands. We may yet see the establishment of an institution having for its object to give the instruction necessary as a preliminary to hospital studies, and bearing to the medical profession something of the relation which the College at Osborne bears to the Royal Navy. The "science teaching" of an ordinary school usually occupies too subordinate a position in the curriculum to form an adequate preparation for lives which should be constantly conducted under scientific guidance.

The British Medical Association: The Address in Medicine.

THE annual meeting of the British Medical Association affords an opportunity for the presentation to large numbers of the medical profession of the results of new investigation and of a review or summing up of the present state of knowledge in the various branches of their science. In particular, the addresses in plenary congress are employed in this double capacity. During recent years the prevention and treatment of tuberculosis have taken a prominent place in scientific discussions, and the problems involved have been constantly brought before the public by means of the provisions proposed or adopted by local authorities in order to try and lessen the incidence of the disease. In his Address in Medicine Dr. R. W. PHILIP touched in a masterly manner on many points in connexion with the outlook of modern medicine on tuberculosis, and the summary which he gave of the forward movement which has taken place during the last 35 years is full of interest, and forms a useful introduction to the larger views on immunisation and the more advanced methods of therapeutics now being practised. He very properly pointed out that the physician and the sanitarian had joined hands, and had been aided not a little by educated social workers who recognised the vast part played by tuberculosis as an agent of national devitalisation and impoverishment. The report of the Registrar-General indicates the great fall in the number of deaths from this disease that has occurred during the last 50 years, the decline being mainly due, no doubt, to the improvement in sanitary matters that has been effected. It is only by a hearty and thorough coöperation on the part of the medical profession, their patients, and the public at large that any further diminution in the mortality from tuberculosis can be accomplished.

The natural way to attempt to stamp out a disease is, of course, to discover its cause and the manner in which it is spread, and then to take such steps as may best prevent these etiological factors from taking effect. Unfortunately, the dissemination of tuberculosis is too complicated a matter for easy prevention. Dr. PHILIP, however, drew attention to one feature in tuberculosis the importance of which in regard to etiology and prophylaxis cannot be exaggerated—namely, the frequency of tuberculous infection in childhood. The reason for this tendency has not yet been clearly determined. As in the adult, there are probably several causes at work, the two principal ones being the introduction of the pathogenic bacilli by respiration and the ingestion of food contaminated by the bacilli. The former for many years has been considered the main danger, and, as a consequence, the greatest care is now

taken in the disposal of the sputum from patients suffering from pulmonary tuberculosis, and certain laws have been enacted, which we trust are being duly enforced, to prevent indiscriminate spitting in public places and conveyances. Recently, however, infection by the milk and flesh of tuberculous animals has claimed much attention, the former especially being blamed not only for the occurrence of the disease in young life but also for its appearance in later life, the germs of the disease having in the meantime remained latent. Dr. PHILIP raised certain well-founded objections to this view, one of the strongest being the fact that tuberculosis flourishes abundantly in not a few countries where feeding with milk from cows or other animals appears unknown. But he referred to another factor in the dissemination of tuberculosis the removal of which would, we believe, have as much effect in the prevention of the disease in childhood as any measure that could be introduced. The condition to which we refer is the relatively airless conditions of home and school life, especially amongst the poorer classes. He pointed out that the ratio of increase of pulmonary tuberculosis is greater about the time the child goes to school; also that one morbid influence seems constant throughout the progressive stages of the child's life—namely, the comparative withdrawal of the developing organism from the natural and healthful stimulus of the open air. These undesirable conditions do not only exist in the large towns. Those of our readers who have visited some of the villages in the Highlands of Scotland, or the small communities on the Devonshire or Cornwall coasts the inhabitants of which mainly obtain their living by fishing, may have noticed the anæmic, even unhealthy appearance of many of the children. Closer observation will show the large number of cases in which there are enlarged glands in the neck, or the scars marking the former presence of such glands. This condition may in part be due to improper feeding, but if the houses in which the children are brought up be visited the close and tainted atmosphere in which they sleep and spend a large portion of their time will at once suggest the most potent cause of their debilitated condition. Such homes may be indeed veritable "nests" of tuberculosis. Legislation directed to the removal of such houses would do as much to benefit the health of the community as the destruction of the slums in the large towns.

Dr. PHILIP proceeded at some length to consider the great principle of aerotherapy. He maintained that the application of this method of treatment had completely changed the clinical features of pulmonary tuberculosis, and even went so far as to observe that the classic type of disease as described from generation to generation in the past has ceased to be. Whilst not being able to corroborate Dr. PHILIP in such an advanced statement, we cordially support him in his contention that aerotherapy is the most satisfactory measure yet introduced for the treatment of certain types of cases, and even that it may be successful occasionally in apparently hopeless conditions. The best results, however, are obtained when the patients are able to indulge in graduated exercise and labour, a phase of aerotherapy which Dr. PHILIP does not refer to. Finally, he discussed tuberculin and vaccine-therapy and spoke in an encouraging tone of the results which he had obtained by the use of tuberculin, but he has not yet convinced himself of the value of controlling the administration of the remedy by means of the opsonic index. There is now ample evidence to prove that the value of tuberculin treatment was too hastily condemned shortly after it was first introduced in 1890. Many observers have since published their results, and all these hold out a promise of good to come, but the actual value of tuberculin and the most satisfactory method of its administration require further investigation. We have found Dr. PHILIP's remarks most interesting and suggestive. In discussing a subject of supreme importance to humanity in general he has drawn proper attention to the merits and defects of modern views, and this is the way to enable the medical profession to realise the results obtained and the problems which still remain for inquiry and elucidation.

The British Medical Association: The Address in Surgery.

IT was a happy idea to select Mr. A. E. BARKER to deliver the Address in Surgery at Belfast, for he comes from the north of Ireland and is, indeed, a Fellow of the Royal College of Surgeons in Ireland as well as of the English College. Mr. BARKER has devoted much attention to the surgery of the abdomen and also to local and spinal anæsthesia, and these formed the main subjects of the address. When antiseptic surgery was first introduced its more enthusiastic supporters were inclined to over-estimate the value of the application of antiseptic substances, and at the same time to under-estimate the protective powers of the body against the assaults of micro-organisms. As Mr. BARKER has pointed out, when surgeons first ventured to attack the contents of the abdominal cavity they were imbued with the idea that the peritoneum was one of the most vulnerable tissues of the body, but gradually it came to be recognised that it possessed wonderful powers of repair. This had been seen by some before the introduction of the practice of antiseptic surgery, but when the new principles were understood the powers of repair possessed by the peritoneum were for a time forgotten, and the successes obtained were ascribed entirely to the virtues of the antiseptics employed and the general cleanliness practised in the operation. Before long, however, the conviction was forced on the mind of the surgeon that as many cases of abdominal surgery had recovered before the days of antiseptics absolute asepsis of the peritoneal cavity could not be essential, because a certain amount of infective substance must have been sometimes left behind in the abdominal cavity without serious or fatal result, showing that the peritoneum must have been able at first to tolerate and later to remove completely the dangerous material. The more the pathology of intra-abdominal sepsis was studied the more clear it became that the powers possessed by the peritoneum of disposing of septic organisms must be very great, for otherwise no case of

acute appendicitis, for instance, could possibly recover, and yet it was certain that many such cases did recover even without surgical interference. The natural deduction from these facts was that the peritoneum was not the enemy of the surgeon but his ally, always willing to assist him in dealing with septic organisms, a deduction which raised doubt whether it was desirable to use germicides freely within the abdominal cavity, for they might by damaging the peritoneum interfere with its inherent reparative powers.

Time has intensified our appreciation of the ability of the peritoneum to deal with a bacterial invasion; bacteriology and biology have furnished us with some explanations of the clinical facts, and at present we know something definite about the defensive powers of the peritoneum. The effusion of plastic lymph for the repair of a lesion or for the shutting off of an infected area is only a part of the capabilities of the peritoneum. We know now that under irritation it can pour out an abundant fluid, which dilutes the toxins present, and, moreover, that this fluid, like healthy serum, has the property of inhibiting or destroying bacterial growth. This power is not unlimited, and it not rarely happens that the bacterial invasion, either from its quantity or its quality, may overcome the protective forces of the peritoneum, but every year our opinion of the powers of defence possessed by the peritoneum is being enhanced, and we may learn some effective way of evoking these powers to the full. The practice of increasing the amount of blood and serum in a damaged part by means of poultices and fomentations is of great antiquity, but the biological mechanism by which hyperæmia acts in arresting septic processes has only recently received close study, and now we do not fear so much as formerly the hyperæmia of and effusion into serous cavities. Under the influence of BIER'S views on hyperæmia we increase intentionally the amount of blood and the effusion of serum in some affected areas, and we obtain the very best results. It has been conclusively shown that joint cavities swarming with certain bacteria may be rendered sterile by the hyperæmic treatment. It seems certain now that inflammatory effusions into the peritoneal cavity, induced by the presence of septic organisms, may be up to a certain point definitely beneficial. We are as careful as, even more careful than, before in preventing the entrance of micro-organisms from without during an abdominal operation, but we are more anxious now to avoid damaging the serous membrane by rough handling, by chemicals, or by the chilling of exposure, while we are much more hopeful and much bolder in practice when sepsis is already present in the abdomen. In proof of this Mr. BARKER quoted certain cases. For example, he operated about a year ago on a boy who had a tuberculous abscess in the left iliac fossa. A collection of fœtid pus was found in the midst of adherent small intestine, and as the finger attempted to separate them the bowel wall gave way. It was necessary to resect a considerable length of small gut in order to obtain healthy bowel for the anastomosis. All this was done without antiseptics in the presence of foul pus, some of which must have been left behind, yet Mr. BARKER thought it better to close the parietal incision without drainage. For some days pus oozed out between the stitches, but the discharge soon ceased and complete recovery followed. In another striking case a woman, 49 years old, had an internal strangulation. The abdomen was opened 20 hours after the onset, the patient being cyanosed and pulseless; fœtid greenish-brown fluid gushed out, and nearly five feet of gangrenous bowel had to be resected. Here, too, the wound of the abdominal wall was closed without drainage and perfect and permanent recovery followed. These cases showed clearly that the peritoneum was able to deal with the septic matter that remained after removal of the damaged bowel and the bulk of the effused fluid. Without a belief in the power of the peritoneum to deal with much septic material a surgeon could only look upon such cases as these as hopeless, and would probably abandon the operation. Any prolonged attempts to clean the peritoneal cavity would not only have been futile, but injurious to the defensive powers of the peritoneum. Mr. BARKER next referred to the fortunate issue of cases of cerebro-spinal meningitis as illustrative of the wonderful protective and reparative functions of the serous membrane enclosing the central nervous system when aided by the injection of antitoxin. The conclusions to be drawn from his words are that other serous membranes as well as the peritoneum have a very great power of dealing with infection, both bacterial and toxic; that it is not difficult to lower this natural protection by injudicious interference with the membrane itself; but that by removing some of the effused material, and by otherwise aiding the serous membrane in its conflict with the invaders, much good can be done.

Another subject dealt with by Mr. BARKER was spinal anæsthesia. He spoke strongly in its favour, and as he has had probably more experience of this method than anyone else in this country his conclusions are of great value. He expressed the opinion that the conditions under which operations are performed with spinal anæsthesia are immeasurably superior to those present when a general anæsthetic is used. There are absolute quiet and relaxation all over the field of operation, and these are of vast importance when delicate parts have to be accurately adjusted. At present surgeons are in a position of doubt as to the true value of this method and probably it is not employed to the extent it deserves, but there is justification for advancing slowly in this direction, as even those least willing to set bounds to the possibilities of surgical achievement must allow. Mr. BARKER is very hopeful of the future of surgery. To those to whom it may appear that we have reached, or almost reached, the bounds of what surgery can accomplish, Mr. BARKER says that what has been achieved is almost as nothing to what remains to be done. Certainly every year shows us new avenues along which progress can go, and though it is impossible and useless to attempt to indicate the exact directions of the further extension of surgery, we agree with Mr. BARKER that we are far indeed from the time when it shall be said that surgery has reached its limits.

Annotations.

"Ne quid nimis."

BRITISH PHARMACEUTICAL CONFERENCE.

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DEMORALISING FACILITIES.

EVERYBODY must recognise the advantages of cheap travelling, and the competition amongst those who undertake to convey the public from place to place is such as to reduce the cost to a minimum. In many cases, indeed, it s stated that the public are practically carried for nothing. The inducement to ride rather than walk is thus a temptation which continually confronts the public. It is not difficult to see in this a process which is calculated to lead to physical, and not improbably mental, demoralisation. If a man can reach his home by tramcar or omnibus for a ½*d.* he is not going to trouble himself about walking the distance. He thus loses, perhaps, daily a valuable and healthful form of exercise because travelling is so cheap. Formerly he walked the distance to save a relatively costly fare. The lift is another example of a modern innovation which encourages idleness, and which, indeed, threatens to make the staircase a superfluous and obsolete channel. This is very strikingly illustrated in a large hotel where the great palatial staircases constructed before the days of lifts are scarcely now ever used. Another example of the demoralising tendency of cheap transit is seen in the travelling platform which is designed to save so much walking. Everywhere machinery is devised to save physical effort as though we possessed no means at all for getting about ourselves. Surely this state of things cannot count for sturdiness and healthful activity in the future generation, but is more likely to lead to a state of atrophy which must react unfavourably on the individual. It is open to question whether the human race is better off for at any rate a number of facilities which are constantly thrown in its way. There are, of course, compensations, but not, we think, in all cases.

THE IDEAL PUBLIC-HOUSE.

THE eighth annual report of the executive committee of the Central Public-house Trust Association dealing with the year ending Dec. 31st, 1908, lies before us and contains matter of considerable interest. The object of the association, it may be remembered, is to promote temperance by the elimination of private profit from the retail sale of liquor and by securing to the public the monopoly value of licences. The report, though officially dealing with the year 1908, is dated June, 1909, and mentions a conference of Public-house Trust companies held in March, 1909, at which sundry main principles were accepted as to how Trust Public-houses should be worked. The chief of these is No. 7 which lays down that "the general arrangement and management of each Trust house shall be on the lines of a house of general refreshment and not of a mere drinking bar." This to our mind is the line along which temperance reform could run with the greatest certainty of securing widespread support from all thoughtful people. The report refers among other matters to certain faults in the licensing laws as illustrated by the conduct of the licensing magistrates in East London, where, although the licensing magistrates said that they thoroughly approved of the Trust system, yet upon a technical point they could not see their way to grant a licence to a particular Trust Company. However, despite difficulties with red tape, the association is doing good work, and we heartily wish its operations that extension which will enable it to carry out its aims in a wider field than is at present possible. Until, however, the intentions of the Government as to legislation are made plain, the directors are wise not to try to extend their business.

SUBLUXATION OF THE NECK.

IN the *Journal of the American Medical Association* of June 5th Dr. F. M. Sherman has reported two cases of subluxation of the neck—a comparatively unrecognised condition. He suggests that it is much more common than is supposed and that many cases which are diagnosed as "stiff neck" or torticollis from cold are examples of it. The position of the head is characteristic. If the articular process of one cervical vertebra is displaced forwards the head will be more or less tilted to the opposite side and may also be rotated towards it. This is the position in subluxation. But if the unilateral dislocation is complete, so that the articular process goes far enough to drop down in front of its fellow, the head will be turned towards the opposite side but tilted towards the same side. It is of interest that in both the cases the condition occurred

during sleep and was noticed on awaking, the time when torticollis from cold usually is first observed. In the first case a girl, aged 19 years, awoke suddenly in much pain and unable to turn her head. The condition continued during the remainder of the night and on the following day, when Dr. Sherman was asked to relieve her "stiff neck." The head was tilted to and slightly turned towards the left. The muscles on the right side of the neck were tense. The spinous process of the fourth cervical vertebra was about half an inch out of line with the others. Under ether anæsthesia the method of reduction worked out by Dr. Walton of Boston was performed. The head was bent diagonally backwards and to the left and then rotated into place. At once the condition of the neck changed from rigidity to free mobility. On recovery from the anæsthesia the patient was completely relieved. However, deep tenderness persisted on the right side of the neck for several weeks. In the second case the patient was a young man who during the previous six months had twice had the same trouble in minor degree. On awaking he felt pain and stiffness in the left side of the neck. This grew worse during the following day. On examination the head was decidedly tilted towards the right. The left side of the neck was painful and tender and the muscles were tense. As the previous displacements had been spontaneously reduced Dr. Sherman determined to attempt reduction without anæsthesia. He found it somewhat difficult on account of spasm of the muscles but accomplished it with immediate relief. A stiff collar was applied and worn at night for some time. Some tenderness persisted for a few days. Dr. Sherman thinks that in the great majority of cases of subluxation of the neck the displacement of the articular surfaces is but slight, so that reduction takes place spontaneously.

THE INTERNATIONAL CONGRESS OF MEDICINE.

AT a meeting of the National Committee for Great Britain and Ireland held at the rooms of the Medical Society of London on July 22nd, with Dr. F. W. Pavy, the President, in the chair, it was proposed by Sir William J. Sinclair, seconded by Mr. L. Eliot Creasy, and carried, that the members of the National Committee be circularised as to the advisability of asking His Majesty's Government to invite the Seventeenth International Congress of Medicine to meet in this country. A report was made upon the appointment of official delegates at the Budapest Congress. It was also pointed out that members of the Congress who desire to travel with the party of the Royal Society of Medicine should communicate at once with Mr. J. Y. W. MacAlister at 20, Hanover-square, London, W.

A "SCHOOL CLINIC" FOR BRIGHTON.

THE Brighton education authority at its meeting on July 20th decided to establish a school clinic. When the Act of 1907, imposing upon every local education authority the duty of making provision for the inspection of children, was passed it was quite understood that in the first year or so of its operation little could be done beyond preparing statistical tables of what the school medical officers found. Remedial treatment is the natural corollary, and the education committee at Brighton, acting upon the advice of its medical officer, in conjunction with the medical officer of health, has decided to seek the necessary powers to have delegated to it the authority to provide such treatment in cases where it is required and to debit the ratepayers with the money so expended. But the Brighton proposal is a very modest one. Succinctly stated it is to provide a clinic where the work would be confined to the diagnosis and treatment of contagious skin diseases; to subscribe to hospitals in order to obtain an adequate supply of letters entitling school children to free treatment; and to provide spectacles. The amount to be asked for annually is £100, and it is proposed that of this sum £10 10*s.* should be given to the Sussex County Hospital and £5 5*s.* each to five other hospitals in the town so as to secure letters. Even with a maximum expense of £100 per annum only there was some little objection on the part of some members of the education authority, but they were overruled by another member who reminded the committee that the whole community suffered if the health of the child was bad. We shall watch with interest this step taken by the education authority of Brighton.

TUBERCULOSIS OF THE SUPRARENAL CAPSULES WITHOUT MELANODERMA.

IT is, perhaps, not sufficiently recognised that tuberculosis of the suprarenal capsules may prove fatal without any pigmentation of the skin. The condition, though pathologically similar to Addison's disease, wants the most characteristic feature in the description of that great clinician. It is important that the practitioner should be on his guard as to this possibility, for the diagnosis is easily missed and may be made only at the necropsy. Indeed, here, too, it may be overlooked, for the suprarenal capsules are not organs which receive much attention. Thus the warning given by medical jurists to examine them lest inquisitive questions be asked as to their condition in cross-examination has a very serious basis. At a meeting of the Société Médicale des Hôpitaux of Paris on May 28th M. Ch. Achard and M. Ch. Foix reported the following case. A thin and sickly looking chimney sweep, aged 20 years, was admitted into hospital on Dec. 14th, 1908. His father was dead and the cause of his death was not known. His mother was attending hospital for tuberculous lymphadenitis with suppuration and sinuses. The patient had never seriously been ill. He had ceased work three days before because of fatigue, vomiting, and abdominal pains, principally on the right side. A practitioner who saw him diagnosed influenza. The abdominal pain was not acute and was principally in the epigastrium and right flank; it consisted of attacks of "colic separated by intervals of tenderness." The abdomen was supple and not tympanitic. Pressure on it was a little painful everywhere, and especially in the appendicular region. There was constipation. The temperature was 101·3° F. and the pulse was 90. The face was emaciated and a little drawn; the eyes were a little sunken and surrounded with dark circles. A purgative was given and after a motion the patient improved and the temperature became normal. On the 21st he appeared to have recovered and was discharged. On the 28th he was readmitted because he was always in pain and repeatedly vomited. The face was emaciated and still more drawn. The abdomen was supple but was always the seat of dull pain which predominated on the right side and was increased by pressure. The temperature was normal and the pulse was 80. These symptoms continued until Jan. 5th, when the patient improved and was able to get up. From the 10th to the 14th the vomiting recurred, being sometimes alimentary, sometimes bilious. The patient was always fatigued and constantly felt pain in the right side of the abdomen. On the 15th he died suddenly. The necropsy showed no trace of tuberculosis in the lungs. The liver, spleen, kidneys, and intestines, in particular the appendix, were normal. The suprarenal capsules showed manifest changes. They were hard and easily removed. The right capsule was somewhat enlarged

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Annotations.

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and weighed nine grammes and had an embossed appearance. The left was very small, of the size of a hazel-nut, flattened, very hard, and of a yellow colour, and weighed four grammes. On section both glands were of a uniform yellow colour. Microscopic examination of the left showed diffuse caseation of the whole organ without tuberculous follicles or giant cells. There was no suprarenal tissue. The right capsule was almost completely casefied, but at the periphery was some non-caseous tissue which had completely lost the normal glandular structure and was infiltrated with round cells which were grouped in places into tuberculous follicles, without giant cells. Here some tubercle bacilli were demonstrated. In this case suprarenal insufficiency was manifested by profound and inexplicable asthenia, and abdominal vomiting and pain which predominated so much in the right flank as to suggest appendicitis. Sudden death is a well-known termination of suprarenal disease. Though the patient had complained of being ill only five weeks the complete destruction of the suprarenal capsules could only have been produced in a much longer time.

THE URINE OF THE EARTHQUAKE VICTIMS.

THE effect of traumatic injuries caused by earthquake upon the secretion of urine has been studied in the Naples Hospital for Incurables by Dr. De Sandro,[1] who had 320 of these wounded persons under his care. The principal wound in 73 cases affected the cranium, in 22 the face, in 44 the thorax, in 9 the spine, in 3 the abdomen, and in 122 the limbs. The majority affected the soft parts only. The secretion of uric acid was found to be above the normal in 129, or 40·3 per cent., of the cases for several days after admission, the specific gravity of the urine as well as the diurnal quantity being increased. Many of the patients said also that they had noticed after their release from the débris that they had for the first few times of micturition passed cloudy urine. The increase of uric acid appeared to be dependent not on the locality of the injuries so much as on their extent, their number, and the length of time before release occurred, the pathological causes operating being probably muscular fatigue involved in the efforts which the patients made to free themselves, and respiratory oppression giving rise to destruction of leucocytes and cells, with increased production of nuclein, and ultimately of uric acid. Lactic acid was found in nine cases, all of them presenting urates in excess; all these patients had sustained a number of contusions in different regions of the body and they had all lain for many hours under the débris. Three of them had also somewhat serious lesions in the cranial region. Dr. De Sandro ascribes the presence of lactic acid to extreme muscular fatigue and insufficient oxygenation of the tissues in consequence of the prolonged interference with free respiration, but he does not profess quite to understand why the lactic acid should have continued to show itself three or four days after the patient's release. Dr. De Sandro, who had previously made the subject of glycosuria of traumatic origin a subject of study, was naturally especially interested in the examination of these patients' urine for sugar. It was present in only six of the 320 cases, and all of them were wounded in the cranium. One case was the only one diagnosed as a fracture of the base, and in one the occipital region was affected, though in seven others where there were similar wounds no sugar was found. Out of 20 cases of wounds of the left parietal region only one passed sugar, while three out of the five cases of wounds of the right parietal region were glycosuric. A similar difference between the liability of wounds of the two sides of the brain to produce glycosuria has been remarked upon by other observers. Of course, as those injured in the earthquake were not seen as a rule until three or four days after the occurrence it was impossible to determine when the glycosuria commenced. It amounted to from 3 to 5 grammes per litre (0·3 to 0·5 per cent.) and decreased steadily, disappearing from the fifth to the eighth day. Finally, Dr. De Sandro tested biologically the toxicity of the urine of two of the patients who presented both lactic acid and urates in excess, and found that it was abnormally increased.

[1] La Semaine Médicale, July 21st, 1909, quoting Medicina Italiana.

THE SECOND INTERNATIONAL FOOD CONGRESS.

EXCELLENT work was done last year under the auspices of the Society of the White Cross of Geneva when the first Food Congress was held in that city. The society was formed with the primary object of grouping together, by means of an international organisation, the efforts being put forth in various countries for the amelioration of social conditions, the arrest of the spread of disease and of those conditions which lead to pauperism, and the prevention of the adulteration of food and alimentary substances. So far, however, progress has been made chiefly in the direction of formulating methods for the prevention of food adulteration. Recognising that the isolated efforts of private individuals or even those of single countries were of small effect in checking the growing evil, the society determined to secure as far as possible a codification and unification of the laws affecting foods in various civilised countries by collecting the views of the authorities concerned, so that a common ground of agreement might be arrived at. Broadly, it was agreed that the repression of adulteration could only be rendered really effective by securing a codification and unification of laws, and that measures of repression and of analysis should be reduced to uniformity in all countries. It was further considered that, in order to establish a basis for future legislation, an international exchange of ideas was necessary as to what should be the definition of commercially pure products. This very properly involved ascertaining the views of producers, manufacturers, and so forth, as to the limits of such definitions in regard to the commercial purity of foodstuffs and drugs, and to gain from them if possible a list of operations recognised by the trade as being necessary for the preparation of pure products. The inquiry met with a most gratifying response, not only from the officials of various Governments, but from manufacturers and dealers in all civilised countries. At the meeting in Geneva no less than 21 Governments were officially represented, and the presence of 600 delegates out of 900 on the list afforded striking testimony of the practical interest taken by commerce and industry in the objects of the Congress. Much of the work in regard to organisation had, however, to be deferred owing to a very full programme of business which was inevitable at the first meeting of the Congress. It is hoped, however, that at the second Congress, to be held in Paris from Oct. 17th to 24th inclusive, a more complete statement in regard to manufacturing processes and the operations recognised by producers will be forthcoming, so that the needs of commerce may be harmonised with the requirements of hygiene. To that end the society has again issued appeals to the trades concerned and in all countries for full information upon the subject. The scope of these inquiries may be judged from a statement of the objects of the Congress, which is "for the repression of adulteration in food, chemical products, crude drugs, essential oils, aromatic substances, and mineral waters." The programme recently issued contains already the substance of some very valuable reports on various

industries to be presented at the Paris Congress. The organising committees and the patrons include a number of very distinguished names representative of all branches of science, and there is every reason for predicting that the meeting will be of a most successful description. There can be no doubt that the Congress deals with a most important aspect of the food adulteration question, and we are glad to see that an earnest attempt is being made to render methods of analysis and its results compatible with the actual state of things known to the producer. There can be little doubt that too strict an interpretation has at times been placed upon analytical results, while at others analysis has failed to furnish a positive statement. It is only by scientific men coöperating with the manufacturer and producer that a method of standardising and control satisfactory to all will be found.

THE BLÉRIOT AEROPLANE.

ON Sunday last M. Louis Blériot flew across the channel in his heavier-than-air machine, thus winning the *Daily Mail* prize of £1000. Messrs. Selfridge have had the machine brought to London, where it has been on view in their establishment in Oxford-street. It consists of two curved planes, spreading out some 14 feet and about six feet wide; the aviator's seat is between and above the planes, and from the seat radiate numerous wires by means of which the angles of the planes can be altered and the rudder moved. In front of the planes is the propeller which is revolved by a 22-horse-power petrol motor. In the rear are the elevating plane and rudder, which latter, by the way, was damaged at the time of the descent at Dover. A frame on three wheels keeps the component parts together, and on the occasion of the now historic flight an air chamber was attached to act as a buoy in the event of a mishap. M. Blériot occupied 37 minutes in crossing from Calais to Dover, and, as Mr. Haldane remarked at the luncheon given in the aviator's honour at the Savoy Hotel on Monday, "He did it with wonderful ease, because he had great courage." Undoubtedly, now that the first journey has been made, many more will be accomplished, but though in all probability the flight from London to Manchester will shortly be accomplished, there is plenty of time for the alteration of patients' houses before the medical profession will employ monoplanes for their visits.

THE PREVENTION OF DIGITAL CHANCRES.

WE published in THE LANCET of July 17th (p. 203) a letter from Mr. Albert Shepperd dwelling on the risks run by the medical practitioner of acquiring a digital chancre. The danger of the inoculation of syphilis on the fingers is an ever-present one to the obstetrician, the midwife, and the nurse, and without doubt a good number of such cases could be collected from the literature of the subject. The danger is, of course, greatest in the workers in lock hospitals, but it is very considerable in the case of all gynæcologists. The prevalent custom at the present time of examining all female patients in the dorsal position no doubt tends to minimise this danger to a certain extent. When a woman is examined in the left lateral position the likelihood of a small syphilitic lesion being overlooked is very considerable, and especially is this the case as in many women the primary lesions, at any rate, are often very inconspicuous. But provided that the examining finger is quite free from any crack, fissure, or hang-nail the danger of inoculation is not so great as is usually supposed. Of 481 chancres observed at the Hôpital du Midi only two were on the fingers. At the same time, that the danger is very real is illustrated by the fact that within our knowledge three of the members of the staff of one of the large London hospitals have acquired syphilis in this manner within the last 20 years. It was suggested by our correspondent that any such risk can be overcome by the practice of wearing rubber gloves in examining women, since the disease is nearly always acquired from them and not from male patients. This is, however, an expensive and somewhat impracticable suggestion. If gloves are worn in doubtful cases the greatest care must be taken in their cleansing and sterilisation before they are used again, and this is impossible in a busy out-patient department, while their cost is a serious consideration to the practitioner. Rubber finger-stalls are a somewhat incomplete protection and cannot be used a second time. A compromise between the two is now in use at some hospitals which is very useful. It consists of two rubber finger-stalls, one for the thumb and the other for the index finger, united by a flat piece of rubber sufficiently large to afford almost complete protection to the remainder of the fingers when in the closed position which they usually assume on making a vaginal examination. This guard can be readily cleansed and boiled, is less expensive than a glove, and lasts longer, and has the great advantage over a single finger-stall that it can be used again. Even with this protector it is not, as a rule, possible to wear one for every case which is examined. In the case of practitioners who are especially exposed to the danger of inoculation with the toxin of syphilis it seems to us that a wise precaution would be the use of a lubricant on the lines of the ointment employed by Metchnikoff as a preventive. His experiments have shown that thorough inunction with a mercurial ointment containing 10 grammes of calomel to 30 grammes of lanoline, made at the site of an experimental inoculation with a virus which control experiments had shown to be active, will prevent infection if it be made within 18½ hours of the time of inoculation. The habitual use of an ointment for the lubrication of the fingers containing 30 per cent. of calomel would be a wise, and we should think safe, precaution in the case of those practitioners whose duties require them frequently to examine patients who may be suffering from syphilis. In out-patient practice the use of such a protective lubricant or the employment of a rubber guard should reduce the danger of the occurrence of a digital chancre in a medical man or a nurse to a minimum.

THE THERAPEUTIC APPLICATIONS OF OLEO-BRASSIDATE OF MERCURY.

Dr. Raoul Dupuy has recently described in the *Nouveaux Remèdes* a new preparation of mercury for external use which presents several advantages over the usual outward applications of mercury. It is the oleo-brassidate of mercury which is formed when erucic acid, obtained from rape oil, and oleic acid are allowed to react with mercuric oxide. The product is a mixture of the oleate and brassidate of mercury, the erucic acid passing into its isomer, brassidic acid, during the process. It contains 30 per cent. of mercury and occurs in the form of a transparent yellow jelly, which can readily be spread over the surface of the body, where it is absorbed very rapidly. It does not leave the unpleasant sensation of greasiness that follows the application of ointments containing lanoline or soft paraffin. It is slightly soluble in hot water and is readily washed off the skin with soap and water. Dr. Dupuy recommends its employment in all cases where mercurial ointment would be used, but it is not intended to take the place of mercurial injections. In addition to the advantages already named it does not stain the skin or the linen, nor does it produce stomatitis in the patient or the attendant. On this account it is possible to apply almost twice as much as in the case of mercurial ointment without causing unpleasant symptoms. He has used it since the end

of 1906 with excellent results in syphilis, in daily amounts of 18 grammes, representing 6 grammes, or about 90 grains of metallic mercury. The daily amount should be regulated, according to the susceptibility of the patient, 10, 15, or 20 grammes being rubbed in daily on 30 successive days. The frictions should last about ten minutes, care being taken to rub slowly. Dr. Dupuy prefers to apply the friction at the bend of the limbs or on the inner surfaces of the thighs. It is preferable to abstain from washing the parts for several hours after each friction in order to facilitate the absorption of the mercury. The ease of absorption is shown by the fact that mercury has been found in the urine after applying the friction for five minutes and then washing the skin with soap and water. Although the results obtained with this preparation in syphilis were generally most encouraging, it did not materially relieve the dry, papular eruptions of this disease. Apart from syphilis, the oleobrassidate of mercury has been used with excellent results in parasitic affections of the skin, including pityriasis, which readily yields after two applications, followed by washing with soap and water.

THE Department of Public Health of Queensland in a bulletin dated June 19th states that so far as Brisbane is concerned no case of plague has occurred during the present year. At Mackay a boy, aged 14 years, employed at a boot store and residing at MacAllister-street, died on June 6th. Live filaria worms were found in the blood on the 3rd. Examination of post-mortem specimens revealed the presence of bacillus pestis, but when the health officer and an inspector of this department visited Mackay on June 5th no trace of disease was discovered among a large number of rats examined.

THE MEDICAL TREATMENT OF LONDON SCHOOL CHILDREN.

IN a recent annotation[1] we announced the decision to which the Education Committee of the London County Council has come with regard to the immediate arrangements for the medical treatment of London school children at existing institutions, this decision being based upon the report of the Day Schools Subcommittee. It will be remembered that the consideration of this important matter was begun by the London County Council in July, 1907, when that body appointed a representative subcommittee, consisting partly of its own members and partly of members appointed by medical bodies and other institutions interested in the result to be arrived at, to advise as to whether the systematic medical treatment of London school children (the need for which had been rendered apparent by their medical inspection) should be undertaken by existing institutions or in institutions created *ad hoc*, that is, in special school clinics.

The report of this subcommittee, together with the observations made upon it by the Finance Committee, was presented to, and considered by, the Council during March and April last, and we reported these deliberations and their result in THE LANCET of April 10th, p. 1069. We will repeat the terms of the main recommendations then made to the Council by the Day Schools Subcommittee.

(*a*) That, as the existing provision of private and hospital practice sufficiently meets the requirements in the case of children requiring operative and in-patient treatment (who are thus removed from the direct purview of the educational authority), no further steps be taken in respect of this class.

(*b*) That to supply the additional provision for the medical treatment of school children which has been found desirable, the Council should utilise institutions of the types now existing, giving financial help, if necessary, and receiving special facilities in return for any grant of public money, but that in districts where no suitable institution exists, and where within a reasonable time it shall have been found impossible to make the necessary provision by an extension of existing institutions, the Council should consider whether, in default of other means, it shall make the provision itself, and that it be referred to the Education Committee to report further on the matter.

It should be remembered that although the Day Schools Subcommittee had adopted these recommendations upon the report of the Special Subcommittee of 1907 to which we have referred, it transpired subsequently that they represented the opinion of only the minority of that Special Subcommittee, and that its majority report had been strongly in favour of establishing school clinics on the dual grounds of efficiency and economy. On May 1st last the arguments and views expressed in this majority report were circulated amongst the members of the London County Council, and they have been since placed on sale in an official publication. We summarised and discussed these views in our issue for May 8th.

At the meeting of the London County Council on March 30th, when the Day Schools Subcommittee's recommendations came up for discussion, the views of the majority of the Special Subcommittee of 1907 were not, officially at any rate, before the Council, and, as we reported, Mr. Jackson moved the adoption of the second of these recommendations but was defeated by an amendment of Mr. Hayes Fisher, who moved—

That notwithstanding the declaration of the Prime Minister on March 18th that the Council cannot expect to receive any increased grants from Imperial funds towards the cost of medical treatment of children in the London schools, this Council, being of opinion that certain of the diseases referred to in the foregoing reports are of such a nature as to justify their medical treatment by the education authorities, refers the recommendation back to the committee to report as to the estimated cost of the treatment of each of these diseases, as to the degree to which they affect the educational efficiency of the schools, as to the steps which should be taken to give effect to this resolution, and also as to the steps to be taken to secure such an amendment of the Education (Administrative Provisions) Act, 1907, as will enable local educational authorities to recover the costs of such treatment from parents who are in a position to pay for it.

This amendment having been carried as a substantive motion, the recommendation was referred back to the Day Schools Subcommittee, which reported on May 19th that it was prosecuting inquiries in respect of eye, ear, and skin ailments, but had postponed for six months the question of the consideration of teeth. The publicity which was given to the proceedings of the Council gave rise to a considerable amount of discussion amongst the medical staffs of the metropolitan hospitals as to the advice which they should offer to the managing boards of their respective institutions with regard to accepting the responsibility of treating large numbers of the London County Council's school children, and we were able to place before our readers a representative body of medical opinion upon an admittedly difficult subject. At the same time we gave our own views on this important matter in a leading article,[2] whilst fully recognising the latitude of opinion which must necessarily prevail in a situation where the interests of the school children, the hospitals, the private medical practitioners of the Council's school area, and of the ratepayers are all concerned, and to some extent are at cross purposes.

From what we have said it will appear that the Council has been engaged for the past two years in deliberations of a somewhat complex character, but we trust that we have made clear the position in which the labours of its Education Committee, that body's Day Schools Subcommittee, and the Special Subcommittee of 1907, with its majority and minority reports (the second of which has alone been officially debated by the Council), have at present resulted, that is, in the reference back to the Day Schools Subcommittee of recommendation (*b*) printed above in the light of the instructions contained in the Council's resolution of March 30th. The latest result of this reference has been the preliminary report which this subcommittee presented to the Education Committee of the Council at the meeting of July 14th in view of the approaching long vacation of the Council and of the urgent need of treatment for children suffering from diseases of the eye, ear, and skin, although the inquiries with regard to their treatment have not yet been completed. The report first rehearses nine points suggested to the Education Committee in a memorandum from the Finance Committee as necessary to be considered in connexion with any scheme which the Education Committee may recommend, and proceeds as follows:—

The inquiry which has been so far conducted has been directed towards ascertaining (1) the number of children affected; and (2) what

[1] THE LANCET, July 17th, p. 168.

[2] THE LANCET, May 15th, p. 1398.

the hospitals would be prepared to do in the way of treatment. With regard to (1) we have had before us a return furnished by the medical officer (education) showing the number of children known to be suffering from bad vision and ringworm, and the estimated number of existing cases with aural discharge. A summary of this return is subjoined. Number on roll, 740,728—discharging ears, 14,782; bad vision, 25,950; ringworm, 3014; total, 43,746.

With regard to the hospitals, we caused a letter to be sent to 56 hospitals which deal with eye, ear, and skin ailments, explaining the object which the Council has in view, and asking how far their existing organisation would enable them to deal with increased numbers of child out-patients of the character under consideration, and as to the maximum number of children from the schools who could be received per week, the manner in which they would have to be distributed, and the conditions upon which the hospitals would be prepared to coöperate with the Council.

Replies have been received from 39 hospitals. These may be divided into four categories as follows:—

(i.) Those which have not expressed any desire to coöperate with the Council. There are six in this category.

(ii.) Those which have expressed sympathy and are anxious to coöperate with the Council as far as their present accommodation, staff, and so on, permit. In this category may be placed four children's hospitals and six other hospitals. The authorities of the four children's hospitals included in this category discussed the subject at a conference attended by representatives of eight children's hospitals, when the following resolution was adopted:—

"That, while prepared as charitable institutions to do all in our power for the good of the school children, so far as the means at our disposal and the rules under which the hospitals respectively are governed will permit, we are not prepared to accept a grant of money from the L.C.C., or to give preferential treatment to the children sent by them, or to admit supervision or inspection by the officers of that body."

(iii.) Those which have expressed sympathy, are willing to coöperate so far as their accommodation and staff permit, and have specifically stated that they can take more cases per week. In this category there may be placed at present six hospitals. There is reason to believe that as time goes on the number of hospitals in this category will be largely increased.

(iv.) Those which have expressed sympathy, are willing to coöperate, can take a larger number of cases than at present, and are prepared to accept a money payment. There are 16 hospitals in this category. The tabulated statement shows that the proposals as regards payment vary greatly.

We find that, generally, the hospitals are very sympathetic and willing to coöperate, and we think that the Council is greatly indebted to them for the attitude which they have taken up in the matter.

There is a general feeling that the Council should not ask for any special privileges for the children for whom the hospitals may be prepared to provide treatment, although some of the hospitals have expressed their willingness to afford facilities of a special kind. The replies also indicate that the hospitals would be opposed to any interference from the Council in respect of the treatment or of the management of the hospitals. ..... We are strongly of opinion that responsibility for treatment should rest on the hospitals alone.

There are six hospitals which are prepared to treat additional cases free of charge. We are of opinion that the offers of the authorities of these hospitals should be accepted, and that the thanks of the Committee should be conveyed to the authorities. We would arrange that, as far as practicable, every child should be accompanied by its parent, and that the cases selected on any one day should be selected in such a manner as to avoid placing upon any one department of the hospital a pressure which it would not be able to bear. We propose that the following procedure should be adopted. The children should be selected by the medical officer and cards sent to the parents indicating the nature of the ailments from which the children are suffering, together with a circular letter from the head teachers suggesting that medical advice be sought. If the parents intimate that they are unable to secure the necessary treatment by the ordinary means, suitable arrangements should be made for the children to attend the hospital. The lists should be sent to the children's care committees in order that they may interview the parents where desirable. If such arrangements were to be put into practice at the six hospitals in question, provision could be made for dealing with 460 new cases a week, or 20,000 a year. These hospitals, however, would provide for a larger number of eye cases than for either ear or skin cases. We are of opinion that we should be empowered to enter into negotiations with three, or if necessary more, of the hospitals which are prepared to deal with such cases if financial aid is given.

It has been intimated by certain hospitals that if they undertake more work in the way of treatment of school children they will have to increase their staff of medical assistants, nurses and porters. We consider that a payment of £50 a year for each additional medical assistant working for one half day a week, together with a sum of 2s. for each child treated would be a reasonable payment, and we are of opinion that these figures should form the basis for negotiation with the hospitals in question.

We think that these arrangements will secure medical treatment for as many children as may be selected for treatment by the school doctors at present, and we have some confidence that as the numbers of children selected by the school doctors grow other hospitals will find themselves able to coöperate with the Council.

We recommend—

(*a*) That the offers of the authorities of the undermentioned hospitals to provide medical treatment, free of charge, for school children whose parents are unable to obtain suitable medical treatment by the ordinary means be accepted: Central London Ophthalmic Hospital, Gray's Inn-road, W.C.; London Hospital, Whitechapel-road, E.; Paddington Green Children's Hospital, Paddington Green, W.; Queen's Hospital for Children, Hackney-road, N.E.; Royal Westminster Ophthalmic Hospital, King William-street, Strand, W.C.; Victoria Hospital for Children, Tite-street, Chelsea, S.W.; and that the Council be recommended accordingly.

(*b*) That the thanks of the Education Committee be conveyed to the authorities of the hospitals referred to in the foregoing resolution (*a*).

(*c*) That arrangements be made to secure medical treatment of children at the hospitals named in the foregoing resolution (*a*), and at such other hospitals as may be willing to treat children attending public elementary schools without financial aid from the Council; and that the Council be recommended accordingly.

(*d*) That negotiations be entered into with (i.) the authorities of three hospitals to provide medical treatment at the out-patients' department for children attending public elementary schools whose parents are unable to obtain suitable medical treatment by the ordinary means, for a payment not exceeding £50 a year for each additional medical assistant (working one half-day a week) required to be engaged for the treatment of such children, together with a sum of 2s. for each child so treated to cover the other expenses incurred by the hospitals; and with, if necessary, (ii.) the authorities of other hospitals who may be prepared to undertake such treatment on similar terms; and that the Education Committee do submit a report upon the results of such negotiations in due course; and that the Council be recommended accordingly.

A statement is appended to the report analysing the replies received from the various hospitals in tabular form, of which the following is a brief summary:—

1. Hospitals which have not expressed any desire to coöperate with the Council: Her Majesty's Hospital (Dr. Barnardo's Homes), Kensington Dispensary and Children's Hospital, University College Hospital, Royal Free Hospital, and Western Skin Hospital (Great Portland-street).

2. Hospitals which are sympathetic and are anxious to coöperate so far as existing rules and conditions permit (these are unable to accept financial aid): Belgrave Hospital for Children, East London Hospital for Children (Shadwell), Evelina Hospital, Guy's Hospital, Italian Hospital, King's College Hospital, London Temperance Hospital, Metropolitan Hospital, Royal Waterloo Hospital, and St. Thomas's Hospital.

3. Hospitals willing to coöperate and to take additional cases: Central London Ophthalmic Hospital, Hospital for Sick Children (Great Ormond-street), Paddington Green Children's Hospital, Queen's Hospital for Children (Hackney-road), Royal Westminster Ophthalmic Hospital, and Victoria Hospital for Children (Chelsea).

4. Hospitals which have expressed sympathy, are willing to coöperate with the Council, can take a larger number of children than at present, and are prepared to accept payment: Blackheath and Charlton Cottage Hospital, Charing Cross Hospital, German Hospital (Dalston-lane), Great Northern Hospital (Holloway-road), Hospital for Diseases of the Skin (Stamford-street), Hospital for Diseases of the Throat (Golden-square), the Battersea General Hospital, Poplar Hospital for Accidents, Royal Eye Hospital, Southwark, Royal Ear Hospital (Soho), St. George's Hospital, St. John's Hospital for Diseases of the Skin (Leicester-square), St. Paul's Hospital for Skin Diseases (Holborn), Seamen's (Dreadnought) Hospital (Greenwich), West London Hospital (Hammersmith-road), and Western Ophthalmic Hospital (Marylebone-road).

The table summarises the information received from the above-mentioned hospitals under the following heads: 1. Number of cases at present taken of children of school age. (The replies furnished on this point were meagre.) 2. Number of additional cases which could be taken. 3. Details as to payment required. 4. Other details embodied in the replies.

There was a considerable diversity in the answers received under these headings. Perhaps the most enterprising was from St. John's Hospital for Skin Diseases, which offered to treat the estimated 3000 ringworm cases in the Council's schools in the course of one year for £1000, undertaking the full responsibility of bringing each case to a conclusion, an offer which has not commended itself to the Education Committee. As an example of the number of additional cases which can be taken, Charing Cross Hospital will undertake 1000 refraction cases, 300 to 350 skin cases, and 1000 throat and ear cases a year; whilst the London Hospital is willing to treat 15 aural and 15 ophthalmic cases on four days a week and 20 skin cases on two days a week. The Great Northern Hospital estimates that it can deal with about 3700 new cases a year, allowing for four hours' work per week of one ophthalmic and one aural assistant, and for treating 200 ringworm cases. The Central London Ophthalmic Hospital can take 120 extra cases a week. The Queen's Hospital for Children, Hackney-road, will take 400 refraction cases, 2500 discharging ear cases, and 900 ringworm cases annually; and the Royal Westminster Ophthalmic Hospital will take 60 new cases a week, to 25 of the Victoria Hospital for Children, Chelsea. It will be noticed that the last named of these hospitals are those whose offers of treatment the Education Committee are prepared to accept, as stated in their first recommendation to the Council. We note that St. George's Hospital, in its reply, expressed its anxiety not to interfere with the work of the general practitioner, and we cannot doubt that the committees of other hospitals took this important point into consideration before framing their replies

The recommendations (*a*) (*b*) (*c*) (*d*) embodied in this report were adopted by the Education Committee on July 14th, after a discussion in which Mr. A. J. Shepheard, Dr. Beaton, and Mr. W. Sanders declared themselves in

favour of school clinics, as opposed to the views of the Day Schools Subcommittee which were defended by its chairman, Mr. Jay. Mr. Graham Wallas complained of the unsympathetic attitude of the hospitals and protested against their refusal to accept supervision in the treatment of the Council's school children. Lady St. Helier, who has been of great assistance in securing the hospitals' coöperation, strongly supported the subcommittee's proposals, and Mr. Leon suggested that negotiations should be opened with dispensaries, a matter which it was explained was already under consideration by the subcommittee.

The report thus adopted by the Education Committee came up for consideration by the London County Council on July 27th.

Mr. CYRIL JACKSON, chairman of the Education Committee, said that since the report passed the Education Committee various other hospitals had come in. The Paddington Green Hospital had somewhat withdrawn and had gone into Class 2 of institutions taking up an attitude of general benevolence. But the Council now had the assistance of Guy's Hospital and St. Bartholomew's Hospital, and would probably see its way to doing more than the 20,000 cases mentioned in the report. 46 hospitals had now replied, and 21 were prepared to coöperate and accept payment. With a little careful organisation by the committee they would not only get the children treated but be able to help the hospitals with their out-patients' departments.

On recommendation (*d*) Dr. R. M. BEATON moved an amendment to insert the words "subject to all such negotiations being conducted on the basis that the Council reserves the right of inspection in regard to medical treatment in respect of which grants are made by the Council." Dr. Beaton remarked that the hospitals had taken up a very peculiar position in this matter. As to those which refused payment it was a question between them and the general practitioner. But when the Council made grants it should have some sort of representation, either by the appointment of a representative on the governing body or by sending an official to the hospitals. Especially was this necessary, seeing that in some cases the children would be attended by unqualified men or men having lately qualified.

Mr. SHEPHEARD seconded. He thought that the amendment was very necessary, having regard to the fact that the Council grants would probably be extended to dispensaries and other institutions of the kind.

Mr. JACKSON, replying, said: "Of course, I can't accept the amendment. The hospitals would not stand it, and it is only moved to try and wreck the scheme." Dr. Beaton omitted to say (he went on) that when the Council paid it would pay for qualified clinical assistants and not unqualified medical students. The hospitals were perfectly capable of doing the work properly. He did not think it desirable that young doctors appointed in connexion with the Council's medical inspection work should overlook the clinical assistants who would be supervised in the hospitals by experts.

Dr. BEATON: Nonsense.

Mr. JACKSON defied Dr. Beaton to point to a hospital where the men at the head of the different departments did not see that the work was properly done. The very best men in London hoped to give supervision to this and to attend to cases of special difficulty.

Mr. SHEPHEARD repudiated the suggestion that there was any desire to wreck the scheme.

The Rev. STEWART HEADLAM observed that no one suggested that the children would be entirely under the care of unqualified men, but a good many young students were employed on this kind of work, and the Council ought to exercise supervision.

The amendment was lost on a division by 52 votes to 30, and the recommendations of the committee were then adopted without alteration.

IT is officially notified that the exhibit of Messrs. Burroughs, Wellcome, and Co. at the Bombay Medical Congress, held in February last, has received the highest award.

BRITISH PHARMACEUTICAL CONFERENCE: MEETING AT NEWCASTLE-ON-TYNE.

THE forty-sixth annual meeting of the British Pharmaceutical Conference was held this week at Newcastle-on-Tyne. The proceedings were opened on Monday evening, July 26th, by a reception at Armstrong College by the President, Mr. J. F. Tocher, B.Sc., F.I.C. On the following day Mr. TOCHER delivered his Presidential Address, taking as his subject "Some Problems of Interest to Pharmacists." The address covered a variety of topics of peculiar importance to pharmacists and in a lesser degree of interest generally. In dealing with the question of pharmacopœial revision Mr. Tocher alluded to the work of the committee of reference in pharmacy appointed by the General Medical Council, and commented favourably on the fact that the criticisms of pharmacists had been invited on the recommendations made by that committee. Pharmacists should feel satisfied that the General Medical Council continued to take reasonable means of ascertaining their views respecting pharmacopœial methods and matter prior to the issue of the standard and guide which it was the legal duty of the Council to prepare and to publish. Before passing from this subject he suggested that there was still much work to be done respecting the natural variability in the proportion of the active constituents of plants, and that it should be the duty of the committee of reference to invite capable investigators within their own ranks but outside the committtee to undertake this and other branches of research. Dealing with the effect of the increase in the duty on spirit upon the cost of spirituous galenical preparations, he said that so long as alcohol was used as a solvent of active constituents of drugs, so long would this tax have an injurious economic effect on hospitals, friendly societies, and the sick poor generally. He would like some means to be devised whereby necessary medicines ordered through the legitimate channel—the medical profession—could be entirely freed from taxation, and he suggested that the loss to the revenue could be made good by the imposition of a heavier tax on nostrums. The sale of "patent" medicines was of doubtful service to the community, and he estimated that the annual expenditure per head of the population on these articles was 1*s.* 4*d.* He made a comparison between the cost of drugs 100 years ago with the cost to-day, concluding that on the average the price in 1909 was almost exactly one-half the price in 1810. He also compared prescriptions written 100 years ago with present-day prescriptions, his own opinion being that the character of prescribing in 1810 was equal to, if not superior to, that of 1909. The fact that medicine was now less empirical and was becoming more scientific in its practice was not a valid reason for the decay of prescribing.

Dispensing by Medical Practitioners.

The remainder of Tuesday morning and the whole of Wednesday morning were devoted to the reading of papers and to discussions. Until this year the work of the Conference has been confined to the consideration of papers of a scientific character, but at the present meeting an innovation was made and discussions were arranged on two questions of political rather than scientific interest. Mr. TOCHER introduced a discussion on the question, "Should the dispensing of medical prescriptions be exclusively confined to pharmacists?" He considered that the great grievance with which pharmacists had to contend was that they were members of the only class in the kingdom specially educated and properly trained to dispense medicines, and yet many of them got little employment after qualification in the work they had been specially trained to perform, simply because the work was done by medical practitioners. He put forward a proposal to institute a joint standing committee consisting of members of the British Medical Association and the British Pharmaceutical Conference. Later, if practicable or desirable, interested members of the public, including leaders of friendly societies, might be added. The preliminary duties of the committee would be to collect information from all parts of Great Britain bearing on the actual practice in vogue and to ascertain the facilities existing for a transference of the work to pharmacists in the cases where the

work was performed by, or on behalf of, medical men. Secondly, it was desirable that the committee should collect information from all parts respecting the practice of treating ailments and prescribing for them by pharmacists and by other persons untrained and unqualified for these important duties.

Another interesting discussion was that opened by Mr. H. WIPPELL GADD, F.C.S., barrister-at-law, on Some Problems of the Poison Schedule.

Among the many interesting papers read we may refer to the following. Dr. W. MARTIN read a paper upon Some Experiences in the Testing of Drugs by Bio-chemical Methods, with Special Reference to Digitalis, Squill, and Strophanthus. Dr. Martin went minutely into a subject which was rather outside the pharmaceutical track and in conclusion referred to the idea, which seemed to be gaining ground, that some tests of a bio-chemical nature should be included in the Pharmacopœia. He understood that it would be a departure from the principles that had hitherto actuated the compilers of the British Pharmacopœia to include methods that could not be carried out by the pharmacist himself, and his own impression was that the time was not yet ripe for the introduction of tests of this kind, unless they were made permissive and not mandatory. If it were decided that the "frog test" was the most satisfactory method of estimating the therapeutic activity of certain drugs he thought it might be included, as the tests were of such a kind that they could be carried out quite well and with perfect propriety by men who were trained in the art of delicate manipulation and scientific observation.

The increase in the duty on alcohol probably suggested the subject of the paper read by Mr. W. B. DOTT, F.R.S.E., namely, "The Use of Alcohol in Pharmacy." Mr. Dott remarked that there had been manifest of late a distinct tendency to reduce the proportion of spirituous preparations. Comparing the 1885 with the 1898 Pharmacopœia he found the tinctures reduced from 72 to 65 and the liquid extracts increased from 12 to 17. The question arose: Could the proportion of alcohol used in pharmaceutical preparations be still further reduced without diminishing the medicinal value of the preparations? He thought it could, and mentioned 24 tinctures which could be prepared with lower strength alcohol than that required by the Pharmacopœia. The strength of alcohol used in making many extracts could also be reduced without disadvantage. He also discussed the value of glycerine and acetic acid as solvents.

The results of the analysis of a number of samples of "malt extract with cod-liver oil" were given by Mr. E. F. HARRISON, B.Sc., F.I.C. 19 samples were examined and the percentage of oil was found to vary from 1·5 to 30·5; the diastatic value of the extract varied from 7 to 776, and the percentage of maltose in the extract from 53·6 to 75·2. The author thought it would be agreed that the very great differences shown indicated a state of things which was unsatisfactory, at least from the point of view of the public. Mr. E. W. POLLARD, B.Sc., reported on a number of samples of "commercial emulsions" drawn from many sources. Some were dispensed at various pharmacies in London and the country, while others were purchased at random, but the majority of the samples were obtained direct from wholesale houses. The emulsions varied roughly from 25 per cent. to 50 per cent. and were generally as described on the label; the manufacturers of those containing the lower amounts deemed any information unnecessary. He considered that in a complex mixture like an emulsion 10 per cent. on the result would not be too liberal an allowance in judging accuracy.

Probably no ointment introduced into the more recent of the British Pharmacopœias has given so much trouble and dissatisfaction as the paraffin ointment at present official. Mr. J. H. FRANKLIN had conducted a number of experiments with a view to discover an ointment base to replace it and embodied the results in his paper on "Unguentum Paraffini." He suggested the following alternative formulæ:—

A.	
White petroleum jelly	85 parts,
Pure bleached cerasin	15 ,,
B.	
White petroleum jelly	82 parts.
Paraffin wax m.p. 130° F.	8 ,,
Pure bleached cerasin	10 ,,

"B" is the whiter basis, but "A" is rather smoother.

Mr. C. SYMES, Ph.D., suggested an improvement on the pharmacopœial method for the manufacture of "fluid extract of cascara sagrada." The point of exhaustion of the bark is usually determined by the absence of bitterness in the percolate, but in working a small batch of 28 pounds of bark a short time ago it occurred to Dr. Symes that when bitterness of the percolate had ceased the addition of ammonia to a further portion of the menstruum might be the means of obtaining a further yield of extract possessing medicinal value. He found that the apparently exhausted bark did yield a percolate possessing distinct aperient properties when treated with diluted ammonia, and he described in detail the process employed.

Mr. W. A. H. NAYLOR, F.I.C., and Mr. E. J. CHAPPEL gave details of a process for the "estimation of extractive and glycerine in spirituous galenicals." The process depended on the removal of the glycerine and determination of the extractive by weighing the residue.—Mr. G. PINCHBECK, F.C.S., contributed a note on the "Separation of Strychnine from Brucine." The experiments described demonstrate that the United States Pharmacopœia assay process, modified in a manner proposed by the author, was capable of giving accurate results under conditions which were not onerous to the worker.—Mr. J. G. REMINGTON and Mr. H. LANCASTER communicated a paper on the "Comparative Examination of the Halogen Absorption of Oils by the Methods of Hubl, Wijs, Hanns, and McIlheney"; and Mr. D. LLOYD HOWARD and Mr. J. B. P. HARRISON described a method for the "Determination of Antimony in its Sulphide Preparations."

THE TWELFTH INTERNATIONAL CONGRESS ON ALCOHOLISM.

(*Continued from p. 251.*)

ON Thursday, July 22nd, the Congress met in the Kensington Town-hall, when Sir THOMAS P. WHITTAKER, M.P., read a paper on the Economic Effects of the Production and Consumption of Alcohol. The production of any article which gave employment to a large number of people, he said, was not necessarily a proof that such production was wise or valuable. If money was not spent in the production of liquor it would be available for other things which would give at least as much employment as the liquor trade now gave. The total expenditure on alcohol in this country was £165,000,000, and the value of that expenditure must be gauged from the point of view of the consumer. The real tests of the wisdom and value of this expenditure were two and were exemplified in these questions: (1) were these liquors beneficial? (2) could the consumer afford the expenditure? He went on to contrast the health and work of the teetotaler with that of the non-abstainer and, founding his arguments principally on insurance statistics, drew the conclusion that the abstainer did better work and was more healthy. Drink, he said, was the dominant factor in crime, pauperism, and disease.

Herr KARL KOGLER (Vienna), in a paper on Alcoholism and Industrial Assurance against Disaster and Invalidity, maintained that alcohol leads to degeneration of the race and consequently to an increase of risks in every class of workman's insurance.

In the evening, by the invitation of the Hon. and Very Rev. J. W. Leigh, Dean of Hereford, a garden party was held at the Grosvenor River Club, Henley-on-Thames.

On Friday, July 23rd, the Congress again met in the Kensington Town-hall, when Alderman F. S. SPENCE read a paper on "No License" Legislation, and Herr VIETOR read a paper on International Concert in Protecting Native Races from Alcoholism. After some discussion on these papers it was decided to send the following telegram to Mr. Chamberlain:—

This meeting of the Twelfth International Congress on Alcoholism, composed of members of diverse nationalities and political opinions, recalls the noble words and earnest efforts which you have put forth to protect the native races of Africa from the liquor traffic, which, as you have said, is not only discreditable but disastrous to British trade. We appeal to you once more to support us in our united endeavour to protect the weak races of the world from this gigantic evil.

The afternoon session was held at the Imperial Institute, when Professor LARS O. JENSEN (Bergen) dealt with the subject of Systems for the Control or Management for the Liquor Traffic. This paper had special reference to the Norwegian system of intrusting the sale of liquor to *samlags* or companies, and in the course of his remarks he said that the greatest decrease of drunkenness in Norway had taken place before the introduction of *samlags*, but, on the other hand, the *samlag* system prevented in a large measure the worst forms of drunkenness.

The Scientific Section met in the evening at the Imperial Institute, Dr. T. S. CLOUSTON (Edinburgh) dealing with the subject of the Resistive Power of the Brain against Alcohol, and Dr. F. W. MOTT (London) with the Effects of Alcohol upon the Nervous System.

The work of the Congress was concluded on Saturday, July 24th, with a final general meeting at the Imperial Institute. The papers read included Alcoholism and Crime, by Lieutenant-Colonel A. B. McHardy (Edinburgh); The Treatment of the Criminal Inebriate, by Professor G. Aschaffenburg (Cologne); and Legislation for the Inebriate, by Dr. R. W. Branthwaite (London).

Lieutenant-Colonel MCHARDY brought forward statistics showing that in 1907 58,000 cases of simple drunkenness were reported to the police in Scotland, besides 32,000 cases of breach of the peace, for the most part brought about by excessive drinking. From the records of 153 cases ending in sentences for murder and culpable homicide it was shown that in 84 per cent. of these cases drink either generally or immediately was associated with the crimes.

Professor ASCHAFFENBURG maintained that legal penalties for the treatment of the criminal inebriate were usually insufficient. The drinker was suffering from a disease, and if he showed himself to be incurable he should be sentenced to perpetual custody in an asylum.

Dr. R. W. BRANTHWAITE spoke of the inelasticity of the law, but believed that there was reason to hope that the near future would show extensive changes in our system of dealing with the victims of drink.

It having been definitely decided that the next Congress should be held in 1911 at the Hague the proceedings were brought to a conclusion with the usual complimentary votes of thanks.

EPSOM COLLEGE.

FOUNDER'S DAY was commemorated at Epsom College on Saturday last, when, in spite of the frequent showers, there was a large attendance of relatives of the boys and of supporters of the College. There were also present several old Epsomians who were in the school during the headmastership of the late Dr. Robinson Thornton, which lasted from the foundation of the College in 1855 to the year 1870, and Dr. Thornton's widow, daughter, and two sons. The proceedings began with a service in the chapel, at the close of which the Rev. Canon Curtis, an old boy, delivered a brief address and unveiled a window which has been erected in memory of Dr. Thornton by old Epsomians of his time and other friends of the College who appreciated his work at Epsom. The window, the cost of which was defrayed by subscriptions from old pupils, is placed on the south side of the chancel, and is designed to illustrate the events of Easter Day, that being the day on which the Archdeacon died. The three scenes are Christ's appearance to Mary Magdalene in the garden: "Touch Me not"; the Supper at Emmaus: "He was known to others in breaking of bread"; and Christ's appearance to St. Peter: "The Lord is risen indeed and hath appeared to Simon." The upper tier of lights contain single figures of Apostles and teachers suggesting different ideas of ministerial work: St. James, St. Peter, and St. Timothy, the proposal being to continue a series of figures in the other chancel windows. In the tracery lights are the arms of the University of Oxford and of St. John's College, Oxford, to which the late Archdeacon Thornton belonged. Mr. Percival Turner, with whom the scheme for the memorial window originated, has stated that his requests for subscriptions to the window fund, which were commenced shortly after Archdeacon Thornton's death at Easter, 1906, met with invariably prompt response.

The visitors afterwards assembled in the big schoolroom to hear the customary report by the Head-master, the Rev. T. N. H. Smith Pearse, on the work of the school for the year, and to witness the distribution of prizes by Sir Walter Foster. There were on the platform the Earl of Rosebery (President of the College), who personally presented his own prizes for modern history and English literature, Sir Henry Morris, Bart. (treasurer), Sir William S. Church, Bart. (chairman of the council); Sir Constantine Holman, the Rev. Canon Curtis, Dr. W. Collier, Dr. F. de Havilland Hall, Dr. F. Needham, the Rev. E. W. Northey, Mr. Clement L. Smiles, Mr. W. A. Propert, Dr. Guthrie Rankin, and Dr. F. Taylor.

In reviewing the work of the year the HEAD-MASTER drew attention to the fact that though the scientific successes of the College were well known, and special facilities existed for the preparation of students for the medical profession, it had always been his policy to broaden the education as much as possible, so that boys should enter various professions. He felt sure, therefore, that all present would be glad to hear that honours had been won by old Epsomians during the past year in the classical tripos, in the history tripos at Cambridge, and in the school of theology at Oxford. He referred to two special distinctions obtained by old Epsomians—namely, the baronetcy conferred upon Sir Henry Morris, late President of the Royal College of Surgeons of England, and the appointment of the Rev. R. H. Whitcombe as Bishop of Colchester. He said that, according to some newspapers, public schools nowadays must be judged by the size of their rifle corps, and Epsom College could stand being judged by this standard, since 133 boys, being 80 per cent. of those eligible to join, were members. He deprecated the teaching of the elements of science to very young boys at the expense of such necessary subjects as Latin, English, and French. As evidence of what a school can do in science if boys are properly prepared in other subjects, he pointed out that during the past eight years no fewer than 46 Epsom boys have passed the preliminary scientific examination for the degree of M.B., B.S. of the University of London, and 33 have passed a part, only 16 candidates having failed.

After the distribution of the prizes Sir WALTER FOSTER delivered an address to the boys. He first congratulated Sir Henry Morris upon his baronetcy which had been well won by hard work. He then expressed his pleasure at coming to Epsom College, because he knew John Propert, its founder. As long as the medical profession flourished the name of Propert would be honoured, and Epsom College would have its share in the making of great Englishmen. He was struck by the beauty of the surroundings of the College and the opportunity that was given for healthy and invigorating games, while judging from the appliances for teaching and the character of the staff the College also gave the boys the opportunity of acquiring a healthy mind. Every headmaster he had known always held before his pupils some ideal. When he was a boy the great ideal held out before him was duty. The lives of Nelson and Wellington had a wonderful influence in fixing the guiding principle of life, and no better teaching could be given to young people than that of devotion to duty. But duty done well required something more than mere mechanical adherence to rule. It should be done with foresight and knowledge, and the President of Epsom College, when he preached the doctrine of efficiency, extended and developed the old doctrine of duty. It was not given to everyone to be efficient, but it was given to them all to make the effort. Everyone should start with the idea that one of their principles of life must be the performance of duty, and should feel that in the performance of duty well and wisely done they contributed in the most effective way to the good of their country. In conclusion, he expressed his pleasure at finding that science took a leading part in the curriculum, and said that he was also delighted to know that the Head-master considered classical teaching to be the best way of building up vigorous mental power. In that College, therefore, the older learning would not be neglected, while the younger learning was welcomed and extended. Epsom College was helping to do a great work, and would, as it deserved, take a high place among the public schools of England.

At the conclusion of the address Sir HENRY MORRIS proposed a cordial vote of thanks to Sir Walter Foster for his kindness in visiting the College to address the boys. This was carried by acclamation, and Sir WALTER FOSTER briefly responded.

Amongst the honours gained direct from the school since

last Founder's Day are an open science scholarship at Christ Church, Oxford, an open classical exhibition at Keble College, Oxford, and a pass into Woolwich (forty-second place). 19 boys have passed the matriculation examination of the University of London, and 19 have passed in the first class of the art examination held by the Society of Art Masters.

After leaving the schoolroom the visitors inspected the various new buildings, including the "Markham Skerritt" laboratories, erected through the kindness of the late Mrs. Markham Skerritt, which cost over £5000; the new lavatory block and the carpenter's workshop, all of which have been completed; also the new music block and gymnasium which are in process of erection.

METROPOLITAN HOSPITAL SUNDAY FUND.

AT a meeting of the Council of the Fund held at the Mansion House on July 28th it was announced that £67,212 were available for distribution. We hope to publish a list of awards in an early issue of THE LANCET.

The following are among the amounts which have been received at the Mansion House since our last issue:—

	£	s.	d.
St. Mary Abbots, Kensington ... ... (St. Mary Abbots, £268; St. Paul's, Vicarage-gate, £107; Christ Church, Victoria-road, £64)	439	0	0
West London Synagogue	315	0	0
St. Mary's, Graham-street	261	0	0
Great Synagogue	240	0	0
Hampstead Synagogue	165	0	0
St. Stephen's, Westbourne Park	143	0	0
Holy Trinity, Kensington Gore	135	0	0
St. Michael and All Angels, Paddington	126	0	0
St. Paul's, Avenue-road	123	0	0
St. Luke's, Hampstead	109	0	0
New West End Synagogue	103	0	0
Central Synagogue	97	0	0
Bayswater Synagogue...	95	0	0
St. Bartholomew's, Sydenham	94	0	0
Spanish and Portuguese Synagogue	82	0	0
St. John's Presbyterian Church, Forest Hill	72	0	0
St. Luke's, Hackney	67	0	0
St. John's Wood Synagogue...	60	0	0
Barking Parish Church, with St. Paul's and Missions ...	54	0	0
St. Luke's, Chelsea	54	0	0
Ascension Church, Balham Hill	54	0	0
Trinity Church, Hampstead	53	0	0
St. James's, Clapham Park	52	0	0
"F."	50	0	0
Dr. Ludwig Mond	50	0	0
St. Mark's, Marylebone-road	49	0	0
St. Simon's, Upper Chelsea	43	0	0
St. James's, Holloway...	41	0	0
St. Luke's, Westbourne Park	39	0	0
St. John's, Walham Green	37	0	0
St. Peter's, Streatham	35	0	0
St. George's Presbyterian Church, Brondesbury, and Mission	32	0	0
English Martyrs Church, Streatham	31	0	0
St. Anne's, Stamford Hill	30	0	0
St. Andrew's, Ashley-place	30	0	0
Dalston Synagogue	30	0	0
Stratford Parish Church, with St. Stephen's	29	0	0
St. Stephen's and Church of the Transfiguration, Lewisham	29	0	0
Highbury Quadrant Church	28	0	0
St. Pancras Parish Church	28	0	0
North London Synagogue	28	0	0
Stoke Newington Synagogue	26	0	0
St. Barnabas's, Pimlico	23	0	0
St. Paul's, Winchmore Hill	23	0	0
Brondesbury Synagogue	21	0	0

ASYLUM REPORTS.

Monmouthshire Asylum, Abergavenny.—The total number of patients under treatment during the year ending March 31st was 1123 and the average number resident was 932. There were 98 patients discharged and of these 63 were recovered, the recovery rate for the year being 32·4 per cent. This rate is 6·4 per cent. lower than that obtained in 1907, and 4·4 per cent. lower than the average obtained in this asylum. The deaths during the year numbered 88 and the death-rate calculated on the average number resident was 9·4 per cent. At this asylum there is a great disproportion between the numbers of male and female patients. There are now 134 more male patients than female patients, and the male admissions during the year were nearly double the female admissions. This appears in part to be due to the increased industrial development in the mineral portion of the county. The statistical tables are presented in the new form and have entailed a large additional amount of labour, which it is hoped will enhance their value.

Leicester Asylum, West Humberstone.—The total number under treatment in this asylum for the year ending March 31st was 962, the average number resident being 732. The admissions during the year were 177. In the discharges, of which there were 254, the percentage of recoveries on the admissions was 48·2. The rate of mortality upon the average number resident was 7·1. At this asylum there were 142 epileptic patients under treatment and 11,554 fits were recorded.

County and City of Worcester Asylum, Powick.—The total number under treatment at this asylum for 1908 was 1107, the average number resident being 979. Discharges amounted to 84 patients, and of these 50 were discharged recovered. This gives the high percentage of 71·4 of recoveries, but this is explained by the small number of the admissions on which the percentage was calculated. The deaths numbered 69, being at the rate of 7·04 on the average number resident.

Down District Asylum, Downpatrick.—The total number of cases under treatment at this asylum for the year ending March 31st was 868, the daily average number resident being 739. The admissions numbered 143 and the discharges showed a recovery-rate of 49 per cent. The deaths numbered 40, giving a percentage of 6·8 on the daily average number resident. For the first year in the knowledge of Mr. M. J. Nolan, resident medical superintendent, there has been no case of dysentery, which in former years was a scourge in this asylum. It is hoped that in consequence of the various hygienic measures adopted by the committee the disease will not again assert itself. The report is illustrated with views of the exceedingly pleasant looking accommodation provided for the patients.

Lebanon Hospital for the Insane, Asfuriyeh, near Beyrout, Syria.—The report of this hospital was presented at the annual summer meeting for 1909. The work of the hospital represents the only attempt that has been made in Syria to provide for the mentally affected. The native methods of treatment of the insane appear to be both inadequate and cruel, and there can be no doubt that the work done at the hospital is worthy of all commendation. In the year reported on 122 patients were admitted to the hospital, making a total of 197 patients treated during the year. The discharges numbered 115 and of these 26 were recovered and 26 improved. To account for the large number of discharges it appears that the relations of patients insist on their removal long before they are really well. Those who would wish to learn more of the work of this medical mission can obtain copies of the report from the Secretary, at 35, Queen Victoria-street, London, E.C.

MEDICINE AND THE LAW.

The Liability of Hospitals to their Patients.

THE Court of Appeal recently delivered judgment upon a question of law of considerable importance to hospitals. In the action out of which the appeal arose the plaintiff, Mr. W. H. Hillyer, a medical man, sued the Corporation of the City of London, in their capacity of governors of St. Bartholomew's Hospital, for damages for injuries alleged to have been received by him through the negligence of themselves or their servants. He had been operated upon in the hospital and it was for injuries alleged by him to have been caused to him by the negligence of those concerned in the operation that he sought to recover damages. The decision of the court was delivered by Lord Justice Farwell, who, with regard to the main point of whether the surgeons, anæsthetists, and nurses present at and taking part in an operation are "servants" of the governors of a hospital, pointed out that the surgeons and anæsthetists are not under the direction of the governors or bound to obey their orders, and therefore cannot be regarded as being their servants for whose acts they would be liable. The governors were only subject to the obligation to use care and skill in selecting proper persons as members of the hospital staff. With regard to nurses, although primarily the servants of the governors, they took their orders from and were under the control of the surgeons during an operation, and thus in respect of duties so performed ceased to be the servants of the governors. His lordship, with regard to the

case before the court, said that the appellant had not proved negligence on the part of those engaged in the operation, and that in order to obtain damages he had to prove such negligence on the part of persons for whom the respondents were answerable. At the trial[1] Mr. Justice Grantham had withdrawn the case from the jury on the ground that if there was negligence the defendants were not liable and that there was no evidence of negligence. The judgment delivered was concurred in by the Master of the Rolls and Lord Justice Kennedy and the appeal was dismissed.

Prosecutions for the Sale of Indecent Publications.

Two recent prosecutions resulting in the conviction of the offenders show that the question of the publication of demoralising and indecent jests, pictures, and advertisements is not being allowed to be forgotten, although the Government has not yet found time to legislate upon the lines suggested by the Joint Select Committee which reported in the summer of 1908. In both instances a periodical called *Photo Fun* was concerned, and in the first a defendant named Hemyng, described as its "responsible editor," was fined 40*s.* with 3 guineas costs. It will be remembered that the need of new provisions simplifying the procedure in these cases was dwelt upon by legal witnesses before the Select Committee. In this instance the editor was prosecuted not as such but for sending through the post a packet containing the matter complained of, a copy of his paper which, presumably, the police had ordered from him. We have before us a copy of *Photo Fun*, and its contents may fairly be said to justify the proceedings taken, although we do not know that our copy is of the incriminated issue. Its pictures and printed matter come within the definition suggested by a witness before the Joint Select Committee, as "directly suggesting immorality or promiscuous sexual intercourse, offensive to modesty or delicacy, lewd, unchaste or dissolute." Its advertisements are almost entirely of an objectionable character, the goods offered including preventives of conception, quack medicines and "remedies" for "ladies," for "weak men," and for those suffering from venereal disease, together with books or photographs either indecent or so described as to suggest that they are such. The second prosecution referred to was directed against a man named Burns, a newsagent in High Holborn, and was at the instance of the National Vigilance Association. The original search warrant was issued in connexion with a publication entitled *Photo Bits*, but copies of others, including *Photo Fun*, *Life*, and various French periodicals, were also laid before the court, and the possibility of proceedings against persons more directly responsible for their production than the newsagent was mentioned. On the summons issued the defendant was fined £10, with £3 3*s.* costs, and if this serves as a warning to others carrying on the same kind of business it should have a useful effect. None should have any sympathy with a corrupting and demoralising trade dangerous to the moral and physical health of the public. The report of the Joint Select Committee referred to, which was commented on in a leading article in THE LANCET[2] at the time of its issue, recommended that wider power to deal summarily with the publication of indecent matter should be given to magistrates, and that the determination of what is objectionable and indecent should be left to their discretion without any definition that would limit their powers to dealing only with what is grossly obscene. It also recommended that the advertisement and sale of drugs or articles which might reasonably be considered as designed for promoting miscarriage or for procuring abortion should be made illegal, and that it should be made illegal to advertise drugs or articles designed for the prevention of conception.

Public Health.

ANNUAL REPORTS OF MEDICAL OFFICERS OF HEALTH.

The City of Liverpool.—The fact that the population of Liverpool, the second largest city in the kingdom, is only a little over 750,000 brings home to us the relative smallness of our own population as compared with the United States of America, where there are several cities reaching or nearly approximating a population of 1,000,000. But perhaps the time is approaching when some of the large cities, such as Glasgow, Liverpool, Manchester, and Birmingham, will endeavour once again to extend their areas and thus bring about, by what may be termed compulsory artificial means, what they are by only a very long process able to accomplish by natural increase. Probably all the four cities mentioned could easily, if they could obtain power to extend, bring their populations up to 1,000,000, and thus for the moment exceed the population of Glasgow. The birth-rate of Liverpool for 1908 was 31·7 per 1000, the rates ranging from 18·2 to 39·2 per 1000 in the different districts. Although the Liverpool birth-rate is, like that of the country as a whole, steadily decreasing, it is only exceeded by three of the towns having a population of over 100,000. The general death-rate of the city for 1908 was 18·2 per 1000, and it is of interest in relation to the general social circumstances of Liverpool to notice that the percentage of deaths which occur in public institutions is materially greater than in other towns, the proportion being for 1904–08 32·6 in Liverpool, as against 24·8 in Manchester, 23·4 in Birmingham, and 15·8 in Leeds. Dr. E. W. Hope points out that a high percentage of total deaths in institutions generally implies poverty and want, but that there is another explanation, and that is the popularity of the institutions. This is quite true, and it is not inconceivable that the condition of public institutions might be made so attractive that half the population or even more might elect to die within their walls. In 1884 the death-rate of Liverpool was over 26 per 1000, whereas now it is well under 19 per 1000. The infant mortality rate in 1908 was 140 per 1000 births, and in connexion therewith Dr. Hope very truly observes that "it must never be forgotten that, as regards feeding and care, whatever the municipality is able to do in regard to the preservation of infant life is insignificant when compared with what it is in the power of the mother to do. If the mother will suckle the infant its risks are slight. If she will not do so the corporation proves but a poor foster-mother owing to the absolute impossibility of fulfilling the duties which only the mother herself can discharge." In several of Dr. Hope's reports emphasis has been laid upon the importance of the personal factor of the mother in the prevention of excessive infantile mortality; and in the report before us reference is made to the fact that, in 874 families concerning which inquiries were made by virtue of the death of an infant in such family, it was found that in these families there had been born 3801 infants, of whom, practically all in infancy, no less than 1895 had perished—an infantile mortality rate of 498 per 1000 births. Dr. Hope also refers to the influence which is exerted upon infantile mortality by the rapidity with which children follow one another, and where the next arrival may divert detailed attention from its predecessor almost before the first is weaned; and in connexion with this question of very high birth-rates reference is made to the returns of certain corporation dwellings built to accommodate persons displaced by the destruction of the slum areas in which they lived. The birth-rate in these dwellings, which are situated in an area where the birth-rate is 40 per 1000, was no less than 55 per 1000 during the last two years. There were 21 cases and 10 deaths from typhus fever in 1908, figures which rather suggest that some of the cases went undetected. Since the year 1902 there has been, as in many other large towns, a marked decline in the death-rate from enteric fever, and the same observation holds good with reference to the death-rate from pulmonary tuberculosis, as to which subject Dr. Hope makes some very statesmanlike comments. Referring to phthisis mortality in the corporation dwellings, he remarks that notwithstanding the history of the occupiers the mortality during 1907–08 was only 1·35 per 1000, a rate certainly lower than that of the city as a whole and very considerably below that of the districts in which the dwellings are situated. Holding the view that this low phthisis death-rate is the result of the good sanitary conditions provided by the corporation Dr. Hope adds: "No practical sanitarian would suggest that if instead of spending the money in demolishing the slums, purchasing the sites, and erecting the dwellings it had been spent in providing sanatoriums and in removing and maintaining the diseased people therein that the results would have been at all comparable either in benefit to the city or to the inmates of the dwellings themselves," and when we turn to the maps and illustrations of the corporation dwellings contained in

[1] THE LANCET, April 10th, 1909, p. 1073.
[2] THE LANCET, Oct. 31st, 1908, p. 1307.

the Liverpool report we cannot but express our agreement in the views set forth by the medical officer of health. The work of medical inspection of school children has now been established upon a satisfactory basis in Liverpool. It was at first proposed to establish a separate medical department to act under the Director of Education, but it was eventually determined that the medical officer of health should supervise the work.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In 76 of the largest English towns 8056 births and 3335 deaths were registered during the week ending July 24th. The annual rate of mortality in these towns, which had declined in the six preceding weeks from 12·6 to 11·5 per 1000, further declined to the exceptionally low rate of 10·6 in the week under notice. During the first three weeks of the current quarter the annual death-rate in these towns averaged only 11·3 per 1000, and in London during the same period it did not exceed 10·9. The lowest recorded annual death-rates last week in the 76 towns were 3·6 in Willesden, 4·4 in Smethwick, 4·8 in York, and 4·9 in Hornsey; the rates in the other towns ranged upwards, however, to 15·6 in Great Yarmouth, 16·3 in West Bromwich, 16·4 in Swansea, and 16·6 in Newport (Mon.). In London the recorded death-rate last week did not exceed 10·0 per 1000, and was considerably lower than in any previous week of this year. The 3335 deaths from all causes in the 76 towns last week showed a further decrease of 302 from the declining numbers in recent weeks, and included 311 which were referred to the principal epidemic diseases, against 341 and 324 in the two preceding weeks; of these 311 deaths, 95 resulted from measles, 88 from diarrhœa, 51 from whooping-cough, 34 from diphtheria, 32 from scarlet fever, and 11 from "fever" (principally enteric), but not one from small-pox. The 311 deaths from these epidemic diseases last week were equal to an annual rate of 1·0 per 1000, corresponding with the rate in the previous week. No death from any of these epidemic diseases was registered last week in Bradford, Willesden, Brighton, Wallasey, Northampton, or in 14 other smaller towns; the annual death-rates therefrom ranged upwards, however, to 3·7 in West Bromwich, 3·8 in Bootle, 4·2 in Walsall, and 6·7 in Newport (Mon.). The 95 fatal cases of measles in the 76 towns showed a further considerable decline from the numbers returned in recent weeks; the highest annual death-rates from this disease last week were 2·3 in Bootle, 2·5 in Wolverhampton, 2·6 in Walsall, and 6·0 in Newport (Mon.). The deaths attributed to diarrhœa, which had steadily increased from 58 to 67 in the four preceding weeks, further rose to 88 last week, but were considerably below the average for the season. The 51 fatal cases of whooping-cough showed a further decline from the numbers in recent weeks, but caused annual rates equal to 1·1 in Walthamstow and in St. Helens, and to 1·3 in Southampton and in South Shields. The 34 deaths from diphtheria were within one of the numbers in the previous week, and included three in Manchester and Salford, and two both in Rochdale and in Newcastle-on-Tyne. Of the 32 fatal cases of scarlet fever ten occurred in London and its suburban districts, four in Liverpool, and three in Manchester and Salford. The deaths referred to "fever," which had been nine and 22 in the two preceding weeks, declined again last week to 11. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had steadily increased in the seven preceding weeks from 2228 to 2737, fell to 2731 on Saturday last; 367 new cases of this disease were admitted to these hospitals during last week, against 371 and 415 in the two preceding weeks. The registered deaths in London last week referred to pneumonia and other diseases of the respiratory organs, which had been 154 and 108 in the two previous weeks, rose again last week to 132, and exceeded by nine the corrected average number in the corresponding week of the five years 1904–08. The five deaths directly referred last week to influenza in London exceeded the number in the previous week by two. The causes of 22, or 0·7 per cent., of the deaths registered in the 76 towns last week were not certified either by a registered medical practitioner or by a coroner. The causes of all the deaths registered during last week were again duly certified in Manchester, Leeds, Bristol, West Ham, Bradford, Newcastle-on-Tyne, Hull, Leicester, Salford, and in 54 smaller towns; the 22 uncertified causes of death last week in the 76 towns included five in Liverpool, three in London, and two each in Birmingham, Bootle, and Sheffield.

HEALTH OF SCOTCH TOWNS.

In eight of the principal Scotch towns 903 births and 448 deaths were registered during the week ending July 24th. The annual rate of mortality in these towns, which had been equal to 13·3, 12·9, and 12·5 per 1000 in the three preceding weeks, was again 12·5 in the week under notice. During the first three weeks of the current quarter the death-rate in these Scotch towns averaged 12·6 per 1000; in the 76 large English towns the mean death-rate during the same period did not exceed 11·3. The death-rates last week in these Scotch towns ranged from 7·9 in Leith and 11·2 in Edinburgh and in Aberdeen, to 17·6 in Paisley and 19·8 in Perth. The 448 deaths in the eight towns last week corresponded precisely with the number returned in the previous week, and included 45 which were referred to the principal epidemic diseases, against 36 and 40 in the two preceding weeks. These 45 deaths were equal to an annual rate of 1·3 per 1000, against 1·0 and 1·1 in the two preceding weeks; the rate last week from the same epidemic diseases in the 76 large English towns did not exceed 1·0 per 1000. Of the 45 deaths last week from these epidemic diseases in the Scotch towns, 14 resulted from measles, 14 from diarrhœa, seven from whooping-cough, four from diphtheria, three from "fever," and three from scarlet fever, but not one from small-pox. The 14 fatal cases of measles showed a marked increase upon the numbers in recent weeks, and included six in Paisley and five in Edinburgh. The deaths attributed to diarrhœa, which had been 12 and 11 in the two preceding weeks, increased to 14 last week; eight were returned in Glasgow, three in Dundee, and two in Edinburgh. The seven fatal cases of whooping-cough showed a considerable decline from the numbers in recent weeks; three occurred in Glasgow and two in Edinburgh. The four deaths from diphtheria were fewer by two than those in the previous week, and two of the three fatal cases of scarlet fever occurred in Glasgow. The three deaths referred to "fever" included a fatal case of typhus in Glasgow and one of cerebro-spinal meningitis in Edinburgh. The deaths referred to diseases of the respiratory organs in the eight towns, which had been 71, 61, and 56 in the three preceding weeks, further declined to 49 in the week under notice, and were one below the number in the corresponding week of last year. The deaths in the eight towns last week included 17 which were referred to different forms of violence, of which nine occurred in Glasgow, four in Dundee, and two in Edinburgh. The causes of 26, or 5·8 per cent., of the deaths in the eight towns last week were uncertified; in the 76 English towns the proportion of uncertified causes of death last week did not exceed 0·6 per cent.

HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been equal to 15·6 and 16·9 per 1000 in the two preceding weeks, declined to 14·4 in the week ending July 24th. During the first three weeks of the current quarter the death-rate in the city averaged 15·6 per 1000, whereas the mean rate during the same period did not exceed 10·9 in London and 12·6 in Edinburgh. The 110 deaths of Dublin residents from all causes last week showed a decline of 19 from the number returned in the previous week, and included nine which were referred to the principal epidemic diseases, against three and 11 in the two preceding weeks. These nine deaths were equal to an annual rate of 1·2 per 1000, the death-rate from the same epidemic diseases last week being equal to 0·8 in London and 1·0 in Edinburgh. Of the nine deaths from these epidemic diseases in Dublin last week, four resulted from diarrhœa, two from "fever," two from whooping-cough, and one from diphtheria, but not one from measles, scarlet fever, or small-pox. The four deaths attributed to diarrhœa were fewer by one than the number in the previous week. The 110 deaths at all ages included 24

of infants under one year of age and 24 of persons aged upwards of 60 years; the deaths of elderly persons showed a considerable decline from the numbers in recent weeks. Nine inquest cases and six deaths from violence were registered during the week; and 48, or 43·6 per cent., of the deaths occurred in public institutions. The causes of four, or 3·6 per cent., of the deaths in the city last week were not certified either by a registered medical practitioner or by a coroner; in London the causes of all but three of the 926 deaths were duly certified, while in Edinburgh the proportion of uncertified causes of death was equal to 4·0 per cent.

THE SERVICES.

THE NEW DIRECTOR-GENERAL OF THE ARMY MEDICAL SERVICE.

Surgeon-General William Launcelotte Gubbins, C.B., M.V.O., has been appointed Director-General in succession to Sir A. H. Keogh, K.C.B. Surgeon-General Gubbins entered the service in 1885 and reached the rank of Colonel in 1900. He was appointed Surgeon-General in 1903. He served in the Afghan war of 1878–80, and took part with the Bazar Valley expedition under Lieutenant-General Maude in medical charge of the 5th Fusiliers, and subsequently of the headquarters staff; in 1879–80 he served with the Khyber Line Force under Lieutenant-General Bright in medical charge of the headquarters staff; he was also divisional sanitary officer and secretary to the Principal Medical Officer, and was present with the expeditions against the Mohmunds and into the Hissarik Valley (medal). He served with the Egyptian (1882) and Burmese (1886) expeditions, and in the South African war in 1899–1901 as principal medical officer of the 6th Infantry Division. He was present at the relief of Kimberley, the actions at Paardeberg, Poplar Grove, Driefontein, and the occupation of Bloemfontein. He took part in the operations in Orange River Colony, and was subsequently principal medical officer of Pretoria and the northern line of communication (medal with five clasps).

ROYAL NAVY MEDICAL SERVICE.

The following appointments are notified:—Fleet Surgeons: G. Ley to the *Juno*, and D'A. Harvey to the *Highflier*, on recommissioning. Staff-Surgeons: A. C. Bean to the *President*, additional, as inspecting medical officer, auxiliary sick berth staff; C. H. Rock to the *President*, additional, to be lent to Yarmouth Hospital, temporary; N. H. Harris to the *Shannon*, P. T. Sutcliffe to the *Defiance*, and F. T. Lobb to the *Victory*, additional, for disposal; R. H. Mornement to the *Eclipse;* J. G. Watt to the *Hermione*, on recommissioning; J. E. H. Phillips to the *Roxburgh*, on recommissioning; and R. S. Bernard to the *Apollo*, on recommissioning. Surgeons: C. J. O'Connell to the *Roxburgh*, on recommissioning; G. T. Verry to the *Flora*, additional; and W. E. Ormsby to the *Halcyon*, additional, for the *Skipjack*.

ROYAL ARMY MEDICAL CORPS.

Captain H. D. Packer has taken over the duties of embarkation and disembarkation medical officer in Plymouth Garrison.

Major Charles W. Duggan retires on retired pay (dated July 28th, 1909).

The undermentioned Captains to be Majors (dated July 28th, 1909): Charles H. Hopkins, Arthur W. N. Bowen, William H. S. Nickerson, V.C., Hubert O. B. Browne-Mason, and Frederick S. Penny.

Lieutenant-Colonel G. E. Moffet, retired pay, has been granted leave of absence from August 2nd to 31st, with permission to travel in Germany.

Lieutenant-Colonel Sir Joseph Fayrer, medical officer of the Duke of York's School, has been selected for duty at Hong-Kong.

INDIAN MEDICAL SERVICE.

Captain H. C. Brown, I.M.S., Brigade Laboratory, Dera Ismail Khan, has been appointed a specialist in prevention of disease.

TERRITORIAL FORCE.

Royal Field Artillery.

3rd West Riding Brigade: Surgeon-Captain Percival Ellison Barber, from the 4th West Riding of Yorkshire, Royal Garrison Artillery (Volunteers), to be Surgeon-Captain, with precedence as in the Volunteer Force (dated April 1st, 1908).

Royal Army Medical Corps.

1st Highland Field Ambulance: John Douglas Fiddes to be Lieutenant (dated June 10th, 1909).

2nd North Midland Field Ambulance: Richard Milbourne West (late Captain, 5th Northern General Hospital, Royal Army Medical Corps) to be Lieutenant (dated June 9th, 1909).

1st Wessex Field Ambulance: Lieutenant Alexander W. F. Sayres to be Captain (dated June 13th, 1909).

5th Northern General Hospital: Captain Richard M. West resigns his commission (dated June 9th, 1909).

3rd Southern General Hospital: Officers whose services are available on mobilisation:—Arthur Latham Ormerod to be Captain (dated July 10th, 1909).

1st Welsh Field Ambulance: Lieutenant John F. Dwyer resigns his commission (dated June 17th, 1909).

Attached to Units other than Medical Units.—Captain Charles K. Bowes resigns his commission (dated June 15th, 1909).

For Attachment to Units other than Medical Units.—Lionel Danyers Bailey to be Lieutenant (dated July 19th, 1909). The announcement of the transfer of Surgeon-Major Joseph Edward Bowser and of Surgeon-Lieutenant John Livingstone from the Westmorland and Cumberland Imperial Yeomanry is cancelled. Surgeon-Lieutenant-Colonel (Honorary Major in the Army) William John Naismith, D.S.O., from the Ayrshire (Earl of Carrick's Own) Imperial Yeomanry, to be Lieutenant-Colonel, with precedence as in the Imperial Yeomanry (dated April 1st, 1908). Lieutenant-Colonel (Honorary Major in the Army) William J. Naismith, D.S.O., is retired under the provisions of Paragraph 59, Territorial Force Regulations, and is granted permission to retain his rank and to wear the prescribed uniform (dated April 28th, 1909). Henry Randall Wadd to be Lieutenant (dated June 7th, 1909). Lewis Beesly to be Lieutenant (dated June 17th, 1909). Thomas Henry La Nauze Hewitt to be Lieutenant (dated June 23rd, 1909). Thomas Francis Roche to be Lieutenant (dated June 23rd, 1909).

Officers Training Corps.

Oxford University Contingent, Medical Unit, Senior Division: Captain Walter T. Brooks to be Major (dated July 12th, 1909).

THE UNIVERSITY OF LONDON TRAINING CORPS.

The military education committee of the University of London Officers Training Corps has issued a handbook for the use of officers and cadets and others concerned. It contains the Regulations of the Senate of the University of London for the military education committee, the names of the committee, rules of admission, and lists of members of the different units. The syllabuses of the different examinations for certificates are also included in the pamphlet.

The statue of the late Sir James McGrigor, Bart., first Director-General of the Army Medical Department, has been removed from the Chelsea Hospital to the new Royal Army Medical College in Grosvenor-road.

Surgeon-General H. R. Whitehead, C.B., Principal Medical Officer, Southern Command, inspected the barracks and hospitals at Exeter on July 26th, Taunton on July 27th, and Trowbridge on July 28th.

Correspondence.

"Audi alteram partem."

THE ROUTINE USE, BY THE OPEN METHOD, OF A MIXTURE OF CHLOROFORM AND ETHER

To the Editor of THE LANCET.

SIR,—Dr. A. Goodman Levy's letter in your issue of July 17th constitutes a valuable addendum to our joint report on the above subject published by us in your columns of July 3rd, and answers certain of the criticisms advanced by your correspondents in your issue of July 10th. The work which

Dr. Levy has done is of great interest as bearing directly upon the method we have advocated. We find ourselves unable to agree with Dr. Donald J. Munro as to there being any disadvantages whatever *in practice*, dependent upon the fact that ether and chloroform have different rates of vaporisation, provided that the mixture we advocate be administered as we have described. Instead of meeting with irregular effects, as might theoretically be supposed, we have obtained regular and equable results. Dr. J. D. Mortimer criticises our use of the terms "open" and "semi-open." We think Dr. Levy's letter will justify the distinction we draw between these two expressions. We are interested to learn that Dr. Desborough Brodie has employed the method we advocate, and with equally good results. Dr. Alexander Brown asks whether it is our opinion that the administration of C.E. mixture by the open method should supersede its administration by means of an inhaler devised by one of us. The fact is that when that inhaler was introduced the possibility of obtaining adequate anæsthesia *in all subjects* by means of the C.E. mixture administered from a Skinner's mask was not fully appreciated, and the passage in the work referred to by Dr. Alexander Brown therefore needs slight modification. At the same time, the inhaler in question, by reason of its wide air-inlet, is greatly to be preferred in point of safety to others of the Rendle type. Now, however, that the practicability of obtaining adequate anæsthesia by a simple Skinner's frame of particular dimension and construction is established, there is not that necessity for a semi-open inhaler with wide air-inlet that previously existed. Finally, we come to Dr. G. A. H. Barton's remarks. After directing attention to all absence of novelty in our contribution—which, we are sure, he will see is our misfortune rather than our fault—he suggests one or two improvements in our method. These, however, appear to us to be rather on the side of complexity than on that of simplicity. We do not ourselves attach great importance to rapidity of induction, except in certain special types of subject, believing that the best kind of anæsthesia *during operation* is to be obtained by gradual rather than by rapid induction methods. At the same time, we tender him and all your other correspondents our best thanks for discussing a subject which we think is of importance to all who administer anæsthetics, and particularly to those practitioners to whom simplicity of procedure specially commends itself.—We are, Sir, yours faithfully,

FREDERIC HEWITT.
J. BLUMFELD.

July 19th, 1909.

NATIONAL UNION OF ASSISTANT PHARMACISTS.

To the Editor of THE LANCET.

SIR,—I am instructed to forward you a copy of the protest which has been sent to the Pharmaceutical Society on behalf of our union.—I am, Sir, yours faithfully,

S. CARLTON FARRER, M.P.S.,
Honorary General Secretary.

Birmingham, July 13th, 1909.

[COPY.]

To the Pharmaceutical Society, London.

We, the undersigned, officials and executive members of the National Union of Assistant Pharmacists, have carefully considered the communication sent to you by the Society of Apothecaries asking for the admission of persons holding their Assistants' Certificate to the rank and privilege of pharmaceutical chemists.

On behalf of our members, who are the section in pharmacy most vitally affected by the proposition made therein, and as members of the Pharmaceutical Society and registered chemists and druggists, we hereby emphatically protest against their entrance on any such terms; and we respectfully urge upon you as our representatives to secure to us the utmost possible protection from such unfair competition.

Section 4, Clause B, of the Pharmacy Act, 1908, requires the Council of the Pharmaceutical Society to satisfy itself "that they are persons of sufficient skill and knowledge to be so registered," and we submit that the present holders of the Apothecaries Assistants' Certificate do not fulfil this requirement for the following reasons:—

(1) All persons of 18 years are eligible for the certificate, which limits the possibilities of adequate practical training with theoretical knowledge.

(2) The whole period of training need not exceed six months, as contrasted with the three years minimum required of candidates for the Minor qualification.

(3) No preliminary examination is demanded, thus reducing the educational standard below that which would be required for entrance to any profession.

(4) The skill and knowledge required for examination as published in the syllabus represents about one-fourth of the educational value of the Minor qualification.

We therefore respectfully suggest that the following condition be embodied in your reply to the Society of Apothecaries:—

"That whilst the Pharmaceutical Society is willing to register candidates as pharmaceutical chemists or chemists and druggists who can show that they have passed an examination equivalent to the major and minor examinations respectively, conducted by any responsible examining body such as the 'Society of Apothecaries,' 'The Civil Service Commissioners,' or any Colonial body, they would call the attention of the Society of Apothecaries to the fact that the present certificate is not 'evidence satisfactory to the Council of the Pharmaceutical Society that they are persons of sufficient skill and knowledge to be so registered,' and that the mere fact of holding the Assistants' Certificate for a period of five years as suggested does not satisfy such requirements."

We submit that the Society of Apothecaries is bound to institute a higher examination before submitting to the Pharmaceutical Society any claim for registration. We feel it would be a gross subversion of the spirit and intention of the law as expressed in the Pharmacy Act, 1908, and a standing injustice to all present holders of the Major and Minor qualifications, as well as a sacrifice of the best interests of pharmacy in the future to grant to any person without corresponding training, individual effort, and financial outlay, registration under the Pharmacy Act. We have every confidence that you will give that careful and sympathetic consideration which our request demands having regard to the fact that the qualification is to many assistant pharmacists the sole means of livelihood.

(Signed)

J. WILSON.
LEONARD STEVENSON, M.P.S.
EDW. S. FRANCIS, M.P.S.
JAMES SMITH.
JAS. J. B. WALDRON, M.P.S.
C. TERRY HOLLOWAY, M.P.S.
S. CARLTON FARRER, M.P.S.
W. J. FINDLAY.
VICTOR BOTTOMLEY.
EDWIN A. LENTON, M.P.S.
JOSEPH M. DOWTY, M.P.S.

Birmingham, July 11th, 1909.

A CERTIFICATE OF THE CAUSE OF DEATH FOLLOWED BY AN INQUEST.

To the Editor of THE LANCET.

SIR,—The annotation in THE LANCET of July 24th, p. 243, under this heading raises the question as to whether the medical man in attendance during the last illness of a person has the power to decide whether he shall give a certificate of death or not. In that annotation you write: "The far more frequent cause of complaint against medical men arises out of the withholding of certificates which cannot conscientiously be granted, but which in the opinion of the coroner or the jury would save the necessity of an inquest." As a matter of fact, the medical man has no such discretionary power. It is obligatory upon him to certify the cause of death even if violent. Section 20 of the Births and Deaths Registration Act, 1874 (37 and 38 Vict., c. 88), is most explicit upon this point. By that section it is enacted:—

In case of death of any person who has been attended during his last illness by a registered general practitioner, that practitioner shall sign, and give to some person required by this Act to give information concerning the death, a certificate stating to the best of his knowledge and belief the cause of death.

It is a great pity that this fact is not fully appreciated and acted upon by medical men. The duty of the medical man would simply be that of signing a certificate in all cases of death, whether due to natural or violent causes. The unpleasant, responsible, and unremunerated work of deciding whether an appeal to the coroner is necessary would thus fall upon the registrar, where it is meant to fall by the Act. The medical man would then be saved those awkward situations you quote. I am, Sir, yours faithfully,

EDWIN J. TOYE.

July 26th, 1909.

RE-INFECTION IN SYPHILIS.

To the Editor of THE LANCET.

SIR,—If you will excuse this belated letter I should like to make a few comments on Mr. Hutchinson's interesting and instructive article in THE LANCET of May 29th on Auto-inoculation and Re-infection in Syphilis, which I have only just seen. In the first place, it is only fair to the memory of Ricord to mention that in later life he recanted some of his earlier statements—for instance, the non-contagiousness of secondary lesions. With regard to the question of re-infection, he made the following remarks in a letter to Mr. W. Acton (published in the *British Medical Journal*, 1872, Vol. II., p. 228): "Now that we have authentic

examples of fresh contagions of indurated chancre, with consecutive evolution of the whole series of constitutional symptoms, this proves that patients have been cured, just as the possibility of contracting small-pox afresh or of vaccination again taking proves that the first variolous or vaccine influence has ceased." Mr. Hutchinson attributes the intermittent method of mercurial treatment to Ricord, but I think it was Fournier who introduced the "chronic intermittent treatment" of syphilis. Whether, as Mr. Hutchinson suggests, this method is less efficacious in curing syphilis than the continuous method, and consequently less likely to be followed by re-infection, is a moot point which would require much evidence to decide. With regard to infection of the subjects of inherited syphilis with the acquired disease, the late Professor Tamowsky published a number of cases of this kind which he called "binary syphilis," and considered that this combination has a more lethal effect on the offspring of such subjects than inherited syphilis by itself. As I pointed out in my book on "Syphilology and Venereal Disease," it may be possible for a patient who has had two attacks of syphilis to be suffering from the effects of both attacks at the same time, for parasyphilitic effects, such as tabes or general paralysis due to the first attack, may appear after the date of re-infection. It is true that Krafft-Ebing obtained negative results from the inoculation of general paralytics with syphilis, but I believe authentic cases of syphilitic chancres in the subjects of general paralysis have been recorded.—I am, Sir, yours faithfully,

C. F. MARSHALL.

St. John's Wood Park, N.W., July 25th, 1909.

MALTA FEVER ON THE RIVIERA.

To the Editor of THE LANCET.

SIR,—Referring to Dr. J. K. Fowler's letter in THE LANCET of July 24th (p. 254), I remember well a case of Malta fever I attended three and a half years ago at Cannes. I made careful inquiries at the time and I think that a similar sequence of events to that recorded was not very uncommon with regard to the Riviera generally about that time. The evidence is not in my own experience and I give the impression resulting from my inquiries for what it is worth. In my own case, which was also an undoubted one, I was quite unable to find the source of infection, though I tried carefully to do so.—I am, Sir, yours faithfully,

R. NEVILLE HART, M.D. Cantab.

Bournemouth, July 24th, 1909.

A VEGETABLE SOURCE OF IRON.

To the Editor of THE LANCET.

SIR,—In THE LANCET of July 17th there is an interesting annotation (p. 164) on a vegetable source of iron. The observations of two French workers are quoted as showing that the dried root of the dock, *Rumex obtusifolius*, contains 0·447 per cent. of iron in a combination analogous to the ferric derivatives of the nucleones. It is perhaps worth while observing that such a preparation of iron with nucleins as a base has recently been obtained which contains as much as 8·0 per cent. of iron. It is called *Fer Ascoli*, and I can speak with confidence as to its value in the treatment of anæmic girls.—I am, Sir, yours faithfully,

A. BUTLER HARRIS, M.A., M.B. Oxon.

Loughton, Essex, July 25th, 1909.

TROPICAL ADENITIS AND PLAGUE.

To the Editor of THE LANCET.

SIR,—In connexion with the annotation on Tropical Adenitis and Plague which appeared in THE LANCET of June 12th (p. 1701), I may say that, prior to our plague visitation, we had many cases of bubo which were certainly not plague buboes nor the usual ordinary bubo—simple or venereal. I mentioned this fact to Professor Simpson, and he told me that in Calcutta these premonitory buboes had also been noticed just before a plague outbreak.

I am, Sir yours faithfully,

A. MARIUS WILSON, M.D. Durh.

Cape Town, July 6th, 1909.

THE MEDICAL TREATMENT OF LONDON COUNTY COUNCIL SCHOOL CHILDREN.

To the Editor of THE LANCET.

SIR,—The attention of my committee has been drawn to the statement in the published report of the meeting of the Education Committee of the London County Council held on July 14th, referred to in THE LANCET of July 17th, that the "Paddington Green Children's Hospital will take 20 ophthalmic cases a week." I am requested to inform you that this statement is incorrect, and that no such offer has been made from this hospital.

I am, Sir, yours faithfully,

W. H. PEARCE, Secretary.

Paddington Green Children's Hospital, London, W., July 24th, 1909.

*** The authority for the statement was the preliminary report of the Education Committee of the London County Council.—ED. L.

THE TERRITORIAL MEDICAL SERVICE.

(FROM A SPECIAL CORRESPONDENT.)

I. ORGANISATION.—DUTIES IN CAMP.

THE following notes are intended as an "appreciation" of the medical organisation of the Territorial Army, in so far as routine duties and sanitation in camps of exercise are concerned, and the relationship of these to active service in the field. Questions connected with the removal of sick and wounded will not be included.

Organisation.

Each division of the Territorial Army is commanded by a General Officer (G.O.C.), and on his staff is appointed an Administrative Medical Officer (A.M.O.) with the rank of colonel, who is a Territorial medical officer. The G.O.C. is the responsible head of the entire division, and the A.M.O. is responsible to him for the efficiency of all the medical *personnel* and equipment in his division for war, as well as for the physical efficiency and health of the entire division. He is the recognised adviser to the G.O.C. on all questions connected with the health and sanitation of the division, and he is also commanding officer (O.C.) of all the Territorial R.A.M.C. in the division. To assist the A.M.O. two staff officers (medical) are allowed, one being a retired field officer of the R.A.M.C., and the other a specialist sanitary officer or medical officer of health from the Territorial Medical Force. A permanent office and clerical establishment are also allotted. Each unit (regiment, battery, &c.) in the division has a Territorial medical officer attached, who is responsible for the physical and medical efficiency of his unit and also for the sanitation of the area they occupy. The Senior Medical Officer of each brigade (S.M.O.) is responsible in the same way for the brigade as a whole. Orders connected with general medical questions and sanitation affecting the entire division are issued by the A.M.O. in the name of the G.O.C., while purely professional orders are issued in his own name. Likewise orders affecting brigades alone or units alone are issued in the name of their respective commanders by the S.M.O. or M.O. respectively, and purely professional orders in their own names. The A.M.O. of a division, S.M.O. of brigade, and M.O. of regiments make inspections of their respective charges, each having in view sanitation of area, physique of the men, their freedom from disease, ventilation, clothing, cleanliness, food, and purity of drinking water. The sick and wounded are treated in hospitals (field ambulances, general hospitals, &c.), and while in hospital the patients are under the command of the medical officer in charge. Each hospital is a unit in itself and bears the same relationship to the G.O.C. and brigade commander as any other unit under their charge. Three field ambulances are allotted to each division, one to each of its brigades; the mounted brigade field ambulance is a smaller unit. The remaining medical unit is the general hospital which trains with the division in peace but belongs to the corps troops in war.

The P.M.O. of an army corps, the A.M.O. of a division, the S.M.O. of a brigade, and the M.O. of a unit are the respective advisers of their commanders on all questions

concerning the health and sanitation of their respective charges.

Duties in Camp.

One of the most important duties of Territorial medical officers will be the education of all officers and men of their units in the essentials of camp and personal sanitation. From the time they enter camp, the conditions of civilian life (which have aptly been compared by a distinguished army sanitarian to the turning of a tap for a pure water-supply and the pulling of the handle of a modern water-closet for disposal of excreta, with municipal plumbers at hand to remedy defects) are left behind, and new conditions prevail which, if not carefully attended to, will prove a source of danger, not only to the individual, but to the entire community under canvas. The two essential principles of camp sanitation either on manœuvres or on active service are, firstly, the immediate burial or destruction of all excreta and refuse, and, secondly, the strict preservation of all water-supplies from contamination. The *laissez faire* fashion in which some officers used to treat these subjects has been a matter of comment, as well as the general apathy which until recently prevailed in the rank and file in matters of sanitation, the principles of which still provide virgin soil for the Territorial medical officers to work on. The starting-point of all sanitary education in the regular army begins now in the officer at Sandhurst and in the recruit at the depôt, and each officer on promotion is now forced to pass an examination in elementary sanitation. The rank and file are very thoroughly instructed in all matters relating to elementary hygiene and sanitation, and all ranks of the Territorial Army must be the same. The routine sanitary measures laid down for the life of the Territorial in camps of exercise will be carried in their minds, to a greater or lesser degree, on service in the field, and finally back again into civilian life.

If a unit has a "chief" strict as to the details of sanitation, not only of his camp and its environment, but also of the personal hygiene of his men during training, we may rely on it that such a unit will be "fit" and in good serviceable condition when put to the test of war. If, on the other hand, you find his tents on manœuvres and their occupants neglected in these matters, such a condition of affairs will never tend to improve on service, but rather get worse, and this unit will invariably break down with enteric fever or other fell dirt disease. Until such time as Territorial regimental officers take these matters up (and they must take them up), their colleagues in medical and sanitary charge of every unit will have to share responsibility with company officers for the following duties:—

1. The physical, sanitary, and medical efficiency of their units.

2. The training of such units in the rudiments of elementary sanitation.

3. The training of, and supervision of, the "sanitary squad" in latrine making, camp conservancy, and especially the conservancy of water-supplies.

4. Strict supervision of cook-houses, cooking vessels, and cooks, the latter especially in camp, where their methods ought to be gone into most fully and studied. All men of a unit should get some sort of practice in field cooking, as on service individuals may have to cook for themselves.

5. The instruction of the "first aid" *personnel* of the unit.

Every unit should be medically inspected as often as feasible during training, the men being paraded and the medical officer walking round and carefully scrutinising each man. In some cases the men are paraded on the parade ground with jackets unbuttoned, with or without shirt open and chest exposed, or again, jackets may be off and shirt sleeves rolled up with arms and forearms bare, extended, and supinated and pronated alternately, as the inspecting officer walks down the ranks. Or, again, inspection may be made in mounted corps as they finish stables, or when not in camp in the drill hall. Wherever an inspection is made its thoroughness must be essential, and to ensure this, where climatic conditions, such as exposure to sun, rain, or wind, may prevent it, a drill hall, marquee, or sheltered shed may be suggested as the proper place, thus ensuring comfort to the men and a more efficient and thorough inspection to the inspecting officer. Having arranged his time the medical officer should make a small allowance for each company, to avoid keeping men waiting in a state of semi-nudity, and when going round he should invariably be accompanied by a commissioned officer detailed by the officer commanding the unit; this officer should, if possible, be the adjutant, or, if he is not available owing to more urgent work to attend to (which ought not to be always the case), he should send his understudy (assistant adjutant) and always one or two junior officers of the regiment for instruction in military hygiene.

It is necessary, if sanitary measures are to be efficiently adopted in the army, to obtain help from regimental officers, and, if medical officers are to get practical assistance, the regimental officers must see and be made to understand how sanitary measures are carried out, and be pointed out defects in all matters relating to camps, food, clothing, and everything pertaining to the hygiene of barracks and the health of the soldier. Young regimental officers in some cases my perhaps take an unfavourable view of such compulsory instruction at first, but if tact is used, and the medical officer shows quietly but firmly that it is in their own interests that they should come and pick up these facts, matters which they will be thoroughly examined in later on for promotion, and of which more can be taught in a five minutes' explanatory walk round than could be understood in weeks of reading, success is certain. The medical officer should not play the rôle of a schoolmaster; let him rather make the task interesting by asking a few questions as to the regulation amount of the various kinds of rations, scales of clothing, &c., and point out how meat is judged and the difference between old and young meat by the bones; or again, let him draw atttention to defects in the physique of the soldier, such as hammer toe and varicose veins, explaining their cause and simple remedy; if this be done he will find, as the writer has found, that all officers will not look on such a "walk round" as a bore, but will turn up again and again, and begin to really take an interest in this branch of their profession.

Medical inspections of units are not made for fun by the particular medical officer making them, though some people seem to think he has nothing to do but "hunt bad smells" in or around barracks. Such visits are made in accordance with the special orders laid down in the King's Regulations, and should such inspections be omitted or fail in thoroughness, a medical officer could, if necessary, be severely punished in the same way as an officer commanding a regiment could also be punished if he neglected to carry out rules laid down for prevention of disease when they had been recommended to him. A medical officer inspecting tents or men is not a faddist; he is, or at any rate he should be, thoroughly earnest; he is the person responsible for the health of the troops, and he is the person who should lose his commission if the work is neglected, unless he delegates his responsibility by reporting the matter to "higher authority." As long as there is no such report, higher authority takes it for granted "all is well," and trusts the medical officer; if the latter abuse this trust by not reporting matters that are not remedied regimentally, he can be court-martialled.

Medical inspection of troops on ordinary occasions in peace time should be made thorough. The present system of passing a complete unit by one inspection is unsatisfactory from a medical officer's point of view, and a nuisance to every one concerned regimentally. If on such occasions the men are numbered off it may often be found that a large proportion of the regimental strength are not accounted for on parade. The important point about the absentees is that we know full well that it is among them the very men we want most to see are to be found—the men who do not, for reasons best known to themselves, wish to see their medical officer. The best way out of this most apparent frustration of medical inspection is to do away with the supposed, and it is maintained impossible, inspection of a unit as a whole unit. Even if a unit were mustered at full strength on parade, the task of proper inspection would be too much for one medical officer, who has his other routine work to do as well in the same morning. Every unit is divisible: if artillery into sections, if infantry into companies, and if cavalry into squadrons. Let these sub-units parade, let one company of an infantry regiment parade alone at as full strength as possible one day; let another company parade the next, and so on, and let the inspection be thorough and searching. Have a roll with the names of the absentees on each parade prepared by the orderly-sergeant, and let him hand it to the medical officer inspecting, who should keep it for reference; and let the absentees come up for inspection on the next or

following days to the same medical officer at some place appointed by him—for instance, the hospital—and let him examine and mark them off as examined on his roll. Thus a regiment or other unit can be given a clean and true "bill of health," say once a training.

The day and hour for medical inspection should be carefully selected to suit all parties concerned; the day chosen should not, if possible, interfere with any of the men's ordinary duties or recreations, and the hour fixed should not delay meals. The men should parade with their jackets off; shirts and vests should be open in the front and rolled back sufficiently wide to show as much of the chest as possible; and shirt sleeves should be rolled high up above the elbows. Shirt inspections are important, especially on manœuvres, where men should be advised to wear either flannel shirts or "greybacks," and discard linen and cotton ones or singlets, all of which are dangerous when wet or when worn abroad under khaki drill in the sun. The cleanliness of the shirt, and its wearer, can also be ascertained, as well as some idea of the upkeep and replenishment or otherwise of these articles, which, unfortunately, are not a Government issue as in the regular army. In a drill hall, men for inspection should have their boots and socks off, and their trousers rolled up above the knee so as to fully expose the calves of their legs. Boots and socks should be laid on the ground for further inspection, as to fit and repair, if necessary. Feet inspections are most essential and should be carried out as frequently as possible; their first benefit is cleanliness. If men expect feet inspections they will prepare for them beforehand. The many irregularities in feet, bunions, corns, and ingrowing toe-nails which lead to men breaking down on the march, can be looked for and pointed out to the company chiropodist for attention (chiropodists should be appointed as in the regular army); the inside of the ankles can be glanced at for itch, a most common place for it to originate in army life.

The men having paraded in the dress just described the medical officer should commence at the front rank man of the first file, and walk down the front line, the men at the same time extending their arms and pronating and supinating their forearms alternately as he passes, in order that he may see both aspects of the arm. Boils, blind or otherwise, are often found in the mounted troops and should not escape notice. A general glance at each man's hair, face, teeth, and chest, carried on to the forearms and feet, occupies but a few seconds. The chest should be scanned for tinea versicolor, a not uncommon skin complaint in the service, due to men wearing unwashed flannel next the skin; it is a harmless, though unsightly, disease and tends to spread rapidly. Having inspected the front rank and having perhaps noted irregularities such as want of cleanliness in regard to the teeth or other matters, the front rank should be directed to take one pace forward, and the medical officer should walk back again behind the front rank inspecting the backs of their legs for varicose veins and take a general glance at head and neck for boils, and also have a glance at their clothing as to its fit, and whether trousers are too tightly braced up, &c. The rear rank is inspected in like manner to the front rank, after which the men can be dismissed and their camp inspected.

Tents should have their flies (kanats) rolled up first thing in the morning and left open all day, weather permitting. Men should leave the door open at night, and the maximum number of men sleeping in a tent should not exceed 12. Before rain, trenches should be dug round tents and side drains should carry away surface water. In fine weather tents should be struck at least once every four days and pitched on a new area. If tent boards are used they should be removed at the same time and the ground swept and exposed to bright sunshine for purification. All bedding should be spread out in the sun and aired daily.

The tents should be frequently inspected and all matters appertaining to general cleanliness, ventilation, washing utensils, beds and bedding, and hair- and tooth-brushes looked into. A medical officer should know exactly the number or scale of articles of clothing and bedding allowed to each man and how often they should be renewed, changed, and washed, and he should ask questions of these matters of the young regimental officers who should accompany him on his rounds. If necessary, a closer medical inspection should be made to eliminate infectious and rupture cases amongst the men of a unit; such a proceeding must always be rigidly enforced prior to active service, as if these cases are not weeded out they will assuredly break down in a campaign and fill the hospitals.

On the relationship that should exist between a medical officer of a unit and the commanding officer of his unit, there is little to comment on. The medical officer is the staff officer in all matters appertaining to the health and sanitation of the unit; he should advise on all matters tending to the health efficiency of the troops under his immediate charge, and keep a special eye on any of the weaker recruits and satisfy himself that they are not being overworked with drill, gymnasium, &c., and also see that the men have proper recreation, outdoor and indoor; as such advantages keep the men from vice and liability to contract disease, especially venereal disease. When under canvas all officers commanding units should be immedially informed by their medical officers of the appearance of any particular infectious disease, more especially enteric fever, among any of the men of their units, or other person in the locality, in order that they may assist their medical officers in every possible way to stamp out the disease, and prevent its extension in their own and to other units of the army. This is essential, for if we are to fight successfully against enteric fever in the field it is of the greatest importance that practice should take place in time of peace, with the same means and on the same scale, if possible, as in war time; and also the more we see of enteric fever in peace time the greater will our experience be for epidemics in a campaign.

(To be continued.)

THE ORGANISATION OF THE MEDICAL PROFESSION IN GERMANY: THE STRUGGLE AT COLOGNE.

(FROM OUR SPECIAL COMMISSIONER.)

Cologne, July, 1909.

THE work of organising the medical profession in Germany for the defence of its economic interests has been taken in hand at a comparatively recent date, though there have been medical societies in existence for some 40 years. Further, these local societies were federated together under the title of the Deutscher Aerztevereinsbund. Nearly all the local societies of medical men are members of this amalgamation or bond and it holds an annual congress, Der Deutsche Aerztetag. Many local societies are not unlike the local medical societies that exist in various parts of England. They are highly respectable institutions where scientific papers are sometimes read and pleasant dinners organised, but which have never achieved anything whatsoever in regard to the great economic struggles of the day. Even when these local societies united one with the other and held annual congresses they did not do anything that was likely to produce a practical result. If there was a crying grievance this amalgamation might appeal to the authorities and perhaps even went so far as to draw up and present a petition. Beyond this, however, it did not venture. At last, some eight years ago, Dr. Hartmann of Leipsic took the initiative in organising a fighting union. He explained that protests, petitions, and complaints were of no use whatsoever unless there was a force behind them that could make itself unpleasantly felt if no attention was paid to the demands brought forward. For this purpose he enrolled members and they paid an annual subscription of £1. The society was named the Organisation des Verbandes der Aerzte Deutschlands, but is more familiarly and generally called the Leipziger Verband. Its object is to watch over the economic interests of the medical profession, and its success in quickly recruiting members is due to the undoubted fact that the economic condition of the profession is getting worse and worse every year. When the society had been in existence three years it was found that the subscriptions paid by the members did not supply a sufficiently large capital to enter upon any very great struggle, and it was determined to raise £25,000 in shares bearing 5 per cent. interest, or in donations. Many donations were made, varying in amount from 1*s.* to £50. But large sums were required, as medical men had to be helped who were suffering because they had obeyed the

orders of their union, while it was also sometimes expedient to buy off those competing against the organised members of the profession.

The Leipziger Verband, however, is not merely organised for the purpose of strikes. It has a central bureau or exchange, which acts as an agency to secure employment for medical practitioners. While it seeks to prevent medical practitioners accepting employment under contract and on conditions opposed to the principles of the medical profession, it, on the other hand, endeavours to find employment that is in accordance with the rules and under conditions considered legitimate. Further, the Verband comes to the rescue of the widows and children of its members. Though only eight years old, this society has now carried everything before it. Finally, and quite recently, the Deutscher Aerztevereinsbund has joined the Verband, so that the joint membership now amounts to about 23,000 medical men. There are in the German Empire something like 30,000 qualified medical men, but as this includes military surgeons, professors at universities, and others who are not in practice, there are probably not more than from 2000 to 3000 active practitioners who are not in the union. Nor is the organisation limited to qualified practitioners; it has permeated the ranks of the medical students. Thus time is taken by the forelock, and the student taught what his duties will be when he has passed his examinations. This is a most practical and useful precaution, for it is the young, inexperienced, newly qualified practitioners who often accept the offers made without realising the evil consequences that will result to themselves and to their profession. There are not only the offers made for contract work in respect to the working classes, but in various towns middle-class and well-to-do sections of the community have endeavoured to constitute themselves into friendly societies and contract for medical attendance. Thus the scope for private practice would be still further restricted. As it is, one-third of the population of Germany is removed by law from private practice as they come under the scheme for compulsory insurance. This applies to those whose incomes do not exceed £100 per annum. But if the people who have larger incomes are going to organise schemes of voluntary insurance little or nothing will remain. Therefore, all the members of the Verband are pledged not to treat with or accept employment in the service of any such mutual insurance association or middle-class friendly society.

A great number of minor disputes arise in all parts of the empire. Thus the other day at Berlin a rich widow founded an institution for the benefit of her employees and laid out £10,000 for this purpose. But in practice the medical attendants did not receive more than 6*d.* per consultation. Doubtless this widow lady is deeply indebted to her employees, who by their work have built up her fortune, but the medical men are not in the least indebted to them. Therefore, they have inscribed this institution on their list of places where offers of employment are not to be accepted. Altogether, a reference to the medical press will show that throughout the empire there are generally more than 100 different places where members of the profession are warned not to accept employment. In the majority of these numerous disputes it is only some one institution that is affected, and the fate of not more than one or two medical practitioners is at stake; but at times, on the contrary, there is a large strike. Of these more serious struggles the present strike at Cologne is a notable example. The free choice by the patient of his medical attendant is the chief point at issue. In Germany, as in France, this is the principal cause of most of the disputes. In speaking of the Compulsory Insurance Law the word *Cassa* (Fr., caisse; Ang., cash) is generally employed. It is the *Cassa* which engages the services of medical men and pays them. Thus the *Cassa* is a sick club, or rather is the committee that collects the funds of a sick club according to the Law on Compulsory Insurance, and effects the necessary payments. The medical officer is not paid according to the service he actually renders, but according to the number of persons he has on his books. He receives from 4 to 5 marks (or shillings) per member per annum. This is the same sum as is paid in England by the better class of clubs and friendly societies, but there is this great difference, the German practitioner obtains the entire sum; there are no deductions. In England the medical practitioner has often to supply medicaments as well as advice, and that costs him from a quarter to a third of his receipts; or the members of a club pay 4*s.* or 5*s.* a year, but the provident dispensary, club, or society takes this money, pays for drugs and working expenses out of it, and only gives the balance to the medical practitioners. Thus when some years ago I looked into the accounts of the Leicester Dispensary I found that of the 4*s.* paid by the members the medical officers only received 1*s.* 10*d.* Nothing of this sort exists in Germany; from 4 to 5 marks a year may be only a small sum, but in any case, such as it is, the German practitioner receives the sum net—that is, without any reduction whatsoever.

In Cologne there are some 400 medical practitioners, and of these about 80 were employed by the local sick clubs. There were 120,000 workmen inscribed in the Cologne *Ortskrankenkassen* and 20,000 families. If we estimate the families at an average of five members each we get a total population of 220,000 enrolled in these sick clubs, among whom medical practitioners cannot hope to obtain a private patient. In some towns which are purely industrial centres and where there is not a large residential and tourist element as at Cologne, the proportion of the population enrolled in sick clubs amounts to 80 per cent. This is especially hard in regard to the families; the payment is 15*s.* per annum per family, which, on an average, means a good deal less than 5*s.* each person, and it is the women and children who very generally require more attendance than the men. But if this pay is small it is certain. In England the situation is seriously complicated by the difficulty of collecting the money and the cost of paying the collectors. In Germany the employer deducts from his workmen's wages the 1 to 2 per cent. of their wages which they have to contribute to the sick fund, while he is by law compelled to add half as much as their contributions amount to, so that two-thirds are paid by the workmen and one-third by their employers. The principle of self-administration prevailing throughout, the management is mainly in the hands of elected representatives of the workmen, aided by the contributing employers and acting under the supervision of the public authorities. So far as possible there are sick clubs for each particular trade, as, for instance, the Builders' Sick Club or the Miners' Sick Club. Management is much easier when all the members have similar risks due to the conditions of employment. The managing boards or committees, as a rule, prefer engaging medical officers themselves. They want the medical officer to be their servant. They want to order him about and reprimand him when they feel so disposed, and the medical profession object to such a state of affairs. They claim that the only persons they have to consider are their patients, and will not tolerate the interference of a committee of workmen standing between them and their patients. The law has decided that all workers who do not earn more than £100 a year must insure against sickness, and has established the necessary machinery for carrying this out and for effecting the necessary payments. But the law leaves the patient free to seek the advice of any medical practitioner who is willing to attend him for the payment which the sick clubs are able to give. At Cologne, however, the sick clubs selected from 80 to 100 practitioners and compelled their members to consult these men and none other.

In 1903 the Deutscher Aerztevereinsbund held its congress at Cologne, and having passed resolutions in favour of securing for the patients the free choice of their medical advisers, called upon the local medical societies to make an effort in this direction. Great enthusiasm was displayed in the cause. Some of the largest sick clubs might have had as many as 20 medical officers in their service, so the members of these clubs had a comparatively large choice of medical advisers; other clubs, however, had only two medical officers, and some only one, so that the members of these clubs had no choice. But by throwing this club practice open to all the medical men of the town the patients, whether belonging to large or to small clubs, would be able to choose from among about 300 medical practitioners. Nevertheless the administrators of the sick clubs would not accept this principle, and ultimately, in 1904, a general medical strike was declared. The strike was to secure for the public the free choice of medical advisers, and for the medical advisers a uniform annual payment of 5 marks per member of the sick clubs. The whole of the medical staff of the clubs joined the strike, and this was all the more remarkable as the object to be attained meant a reduction in their income.

The sick clubs at once set to work to import medical officers and succeeded in securing the services of from 32 to 35 practitioners. They were engaged at a fixed salary, varying from 5000 to 8000 marks per annum. Fortunately for the medical profession the Government has set a limit to the amount of work a medical man is supposed to do, and it is the law that no medical practitioner shall have more than 2000 members of a sick club on his list. Consequently the Government interfered and ordered the committees of the sick clubs to come to terms with the members of the profession so as to secure the services of a sufficient number of medical officers. A five years' agreement was then drawn up with the local society of the Cologne practitioners. The payment of 5 marks per member and the free choice of medical adviser was the accepted basis of the agreement. Thus and in consequence of the intervention of the Government the strike was fully successful. But there remained a sore point—the imported medical men. It was very essential to get rid of them, and it cost a great deal of money to persuade them to go. They had to be compensated to the extent of from £400 to £720. However, with the exception of four or five they all accepted and went. But for some years the medical practitioners of Cologne had to sacrifice a considerable part of the 5 marks they received from the members of the sick clubs so as to provide the means to compensate the imported practitioners and send them out of the city.

Unfortunately the arrangement was only valid for five years and it came to an end on Feb. 1st last. Thereupon the sick clubs declared they would go back to the old arrangement, and the medical practitioners on their side replied that in such a case they would have to strike again. But the situation was no longer favourable. The strike was not so unanimous, as 14 medical practitioners did not agree that it was necessary to strike, and, on the other hand, the sick clubs were able to import a much larger number of medical officers. In a very short time, by making offers of from £300 to £500 per annum, they were able to import more than 60 practitioners. The strike in 1904 only lasted four weeks; the present strike has already lasted as many months. The Government has now no legal reason for interfering, as in the present instance the sick clubs have secured the services of a sufficient number of medical officers. Thus matters have reached a deadlock. The chief hope is that some of the imported men will grow tired of the ignominious position they occupy. Of course, they are ostracised by the whole profession. Deputations from the medical societies constantly call on them and remonstrate. They excuse themselves by pleading poverty and want of practice. A few deny the principle of the free choice of medical advisers and try to argue that it is not a good principle. But as some of these men have already proved failures as practitioners, the hope is entertained that the members of the sick clubs will themselves get dissatisfied and clamour to go back to their old medical advisers, the medical practitioners they themselves selected, instead of being as at present forced to consult imported failures. Some attempts have been made to rouse the members of the sick clubs, but in Germany the workmen are very quiet; they follow meekly their leaders and rarely venture to criticise and take their own business into their own hands. During the five years of the agreement following the strike of 1904 a working man of Cologne could select any one out of 300 practitioners to attend to him when ill. Now he must content himself with the service of the man imposed upon him.

The medical union is making a good fight with this argument. For the moment the struggle goes against them, but mainly because it is limited in extent so that it has been possible to secure the services of a sufficient number of imported practitioners. If, however, a similar contest broke out simultaneously in several large centres, then considering that 23,000, that is nearly all the medical practitioners of Germany, are enrolled in the great national medical union or Verband, the supply of imported men might well become altogether insufficient. In any case, the German medical profession is giving a good example of solid organisation and of solidarity.

DEATH OF EMINENT FOREIGN MEDICAL MAN.—The death is announced of Dr. Gustav Christ-Lott, professor of gynæcology and senior physician to the Gynæcological Department of the Polyclinic, Vienna.

BRISTOL AND THE WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

The British Dental Association.

THE annual meeting of the Western branch of the British Dental Association was held at Clifton on July 16th and 17th. There was a good attendance of members. The annual report stated that the branch had now 124 members. The financial statement was satisfactory. Mr. T. Taylor Genge gave the presidential address, in which he alluded to the subject of the anæsthetics Bills. He said that they were all doubtless of opinion that some legislation should be enacted to ensure the administration of anæsthetics by none but skilled and qualified persons, but legislation which was at present under consideration was certainly very unfair to the future licentiate in dental surgery, who from the training he received should certainly be allowed to administer nitrous oxide gas. To deprive him of doing so would not be to the best interest of the public, and would be neither just nor expedient. The annual dinner took place at the Clifton Down Hotel. It was decided that the next annual meeting should be held at Plymouth, with Mr. G. R. Brittan as president.

The Medical Officer of Health of the County of Somerset.

Dr. William G. Savage has been appointed medical officer of health and chief medical inspector of schools for the county of Somerset at a salary of £700 per annum. Dr. Savage has been medical officer of health of Colchester since March, 1903. He has also held the appointment of bacteriologist to the Cardiff Public Laboratory. For the past three years he has been specially employed under the Local Government Board in carrying out investigations upon food poisoning and the bacteriology of milk.

Memorial to the late Mr. B. L. Powne.

The members of the friendly societies of Chard and the district have placed a handsome granite monument in the Chard cemetery as a memorial to the late Mr. Benjamin Lamb Powne, M.R.C.S. Eng., L.S.A. Mr. Powne had been for many years in practice at Chard, where he was medical officer to the first district of the Chard union and workhouse, and also held several club appointments.

Hospital Saturday in Plymouth and Devonport.

July 17th was observed in Plymouth as Hospital Saturday, when collections were made for the South Devon and East Cornwall Hospital. The hospital at the close of 1908 had a deficit of nearly £3500, and the committee has issued a strong appeal for funds. An effort is being made in Plymouth to exceed the record amount previously raised for the Fund, which in 1895 was £748. July 17th was also observed in Devonport as Hospital Saturday, and a special endeavour was made by the Working Men's Committee to secure a much-needed augmentation of the funds of the Royal Albert Hospital.

The University of Bristol.

Sir Isambard Owen, whose appointment to the Vice-Chancellorship has delighted those interested in the University, has resigned the Principalship of Armstrong College, Newcastle-upon-Tyne. The resignation was accepted by the council of the College with expressions of regret, with thanks for help given during his tenure of office, and with congratulations on his new appointment.—At a meeting of the council held on July 23rd Professor J. Michell Clarke, M.A., M.D. Cantab., F.R.C.P. Lond., was appointed Pro-Vice-Chancellor of the University of Bristol.—The committee formed for the purpose of providing a hall of residence for the women students of the University of Bristol announce that, mainly owing to the generosity of two ladies unconnected with Bristol (one of these, besides making a large contribution, has guaranteed a sum of £2000), they have been enabled, with the aid of a grant from the University, to purchase Clifton Hill House for their purpose. The necessary alterations are now being made, so that students may be received at the beginning of next term in October. A further appeal for contributions will be made in the autumn to enable the committee to complete the equipment of the hall, to repay the guarantee, and to fulfil their promise to the University to

maintain the hall for a period of two years from next October. The treasurer of the fund is Mr. Hugo Mallet of Goldney House, Clifton.—The men lecturers' committee has just issued a report of the past term's work. This report, which refers to no less than 17 separate undertakings, contains many things already alluded to in previous letters. Mention should, however, be made of one or two points. Very full recommendations as to academic costume are included; these have been drawn up after a commendably thorough study of the gowns and hoods in use at the various universities. With regard to University sermons, the committee has decided to arrange for a series of three sermons to be held next session on Sunday mornings, in the large hall of the University if the Senate permit. A Students' Handbook is to be prepared, and a scheme for the circulation of reprints is recommended as the best method of publishing the scientific research of the University in an official form. A specially appointed committee is collecting information relative to the foundation of a University settlement.

Bristol Museum.

On July 14th a new "Greville Smyth" room was opened in the museum by Lady Smyth, who has given the collections of insects made by her husband, the late Sir Greville Smyth, as well as £2000 for the furnishing of the room in which they are now housed. The Lord Mayor moved a vote of thanks to her for her "splendid and welcome gift to the museum," which was seconded by the sheriff and supported by Dr. C. Lloyd Morgan. The Bristol Museum adjoins the University premises, and it is hoped that a connexion may in years to come be established by which the University will benefit by a ready access to this large collection of specimens.

Bristol School of Industry for the Blind.

Ever since 1793 Bristol has provided a school for its blind citizens. In 1803 the original small undertaking passed into larger premises; and in 1838 into the buildings which, occupied till now, will shortly pass into the hands of the University. The school is now to be transferred to much larger buildings at Southmead, on the northern boundary of the city. On July 12th the foundation-stone of these buildings was laid by Mr. Joseph Storrs Fry, after a short dedicatory service. The site includes 12½ acres of land, and the premises in process of erection will provide a resident school and technical institution for 100 pupils. In addition, workshops for 100 men and women are to be provided in the city, with a shop for the sale of the goods made. A sum of between £25,000 and £30,000 is needed in addition to that realised by the sale of the old premises.

Bristol Port Sanitary District.

The medical officers of health of this district have issued their report for 1908. Ships arriving in the port during the year brought ten cases of enteric fever and four of dysentery but none of cholera or plague. A number of data as to the amount of food, including animals, imported into the port of Bristol during the year are given, and the regulations with regard to food inspection, made obligatory by recent legislation, are detailed. An account of such arrangements as already exist for food inspection follows, with recommendations that a port inspector of foods should be appointed to have the oversight of the food imports discharging at Avonmouth and the other docks, as well as of the slaughter-houses at Avonmouth.

July 27th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The University.

SINCE the close of the summer term great headway has been made in the transference of the departments of physics and chemistry to the new buildings at Bournbrook, and the alterations at Edmund-street, which are to give more room to the departments of botany, zoology, physiology, and materia medica and therapeutics, and increased space for the pathological museum, are being rapidly pushed forward, so that everything may be in working order for the commencement of the winter session. It is rumoured that there will be keen competition for the Chair of Zoology, rendered vacant by the death of Professor Bridge, and it is expected that the appointment will be made in September.

The City Sanatorium.

The Salterly Grange Sanatorium was opened on Jan. 7th last, and it appears from the report of the health committee that the results gained during the intervening period are very promising. From Oct. 27th, 1908, to June 30th, 1909, Dr. J. Douglas Stanley, who was appointed to select suitable cases, examined 207 patients, of whom 157 were rejected and 50 were passed for treatment. Those rejected were either in too advanced a stage of phthisis or their family history and constitutional condition were so unsatisfactory that they were unlikely to benefit by the treatment. Forty-nine cases were received at the sanatorium, nine left for various reasons before the completion of their treatment, nine were discharged, and 31 patients were still in the sanatorium at the end of the half year. Of the nine discharged patients eight were apparently cured, and one showed no improvement. Dr. Stanley reports that he has not seen all the patients who have been under treatment, but those he has examined show very satisfactory results, some having lost all signs of phthisis and others being so much better that there is every hope that they will recover completely.

Tuberculosis and Milk-supply.

Whilst our health committee will welcome and take part in any national scheme for the eradication of tuberculosis amongst cows it proposes to act in advance of a general movement, and has under consideration a scheme which, with the approval of the council, it will put in operation in the ten-mile area around Birmingham. If the scheme is approved the dairymen within the area who send milk into the city, who have sanitary cowsheds, and who undertake to separate the healthy from the diseased animals and gradually dispose of the latter, will be provided with the necessary veterinary assistance for testing all their dairy cows. It is estimated that in the first year the scheme will cost £120, and that the cost will gradually increase to £300. By the expenditure of such comparatively small amounts the committee hopes to demonstrate that the dairy herds can be kept free from tuberculosis, and it also hopes that as the cow-keepers become familiar with the methods and see the good results, increasing numbers of them will fall in with the scheme and take the necessary steps to ensure success.

The Hospital Saturday Fund.

Unless the later indications prove to be incorrect, for the first time in its 37 years' history the Hospital Saturday Fund will not reach the level attained in the previous year. Last year 2084 contributors subscribed £20,163 7*s.* 6*d.* This year the number of contributors has fallen to 2045 and the total contributions, according to the last published statement, to £19,040 12*s.* 2*d.*, a decrease of somewhat over £1122. The result is disappointing, yet it is neither unexpected nor surprising, and considering the unsatisfactory state of trade we may be glad that the diminution is not greater. Yet as one passes along the streets one cannot help noticing that the crowds waiting to go into theatres and music halls are not appreciably diminished. Such crowds consist largely of the classes which make most use of the hospitals and it would appear that a little sacrifice of pleasure might have prevented the set back to the Fund which gives so much in return to those who still appear to have money to spend on less worthy objects.

The Health of Warwickshire.

Dr. A. Bostock Hill's annual report upon the health of Warwickshire is very hopeful in tone and certainly the results recorded must be admitted to be good as contrasted with those which existed in the past, if they are looked at purely from the point of view of a health officer. Ten years ago the population was 352,000 and it is now 400,000; during the same period the general death-rate has fallen from 15·93 per 1000 to 12·8 per 1000, and the infantile death-rate from 142 to 100 per 1000; consequently, as a result of the improving conditions an average of 487 lives per annum have been saved, calculating on the population of the middle period and the general death-rate. On the other hand, the birth-rate has fallen and last year it was only 25·7. Whilst the average death-rate is, on the whole, fairly satisfactory, it has been, and still remains, distinctly high in

some districts, particularly in Bulkington, where it is 20 per 1000, and Dr. Hill suggests that an investigation should be made regarding the cause of this comparatively high rate.

July 27th.

LEEDS.

(FROM OUR OWN CORRESPONDENT.)

The Health Congress at Leeds.

THE Health Congress held recently at Leeds has been reported at satisfactory length in the newspapers, more especially in the excellent journals of the great Yorkshire towns, and since the utility of such a congress largely depends upon the public attention which it receives the interest taken in its proceedings by the daily press cannot fail to have been of service to sanitary progress. On such an occasion any new *ex cathedrâ* pronouncements in hygienic science or preventive medicine can hardly be expected, and the Leeds meeting was not, in fact, particularly notable as a scientific conference, but it was of great value in bringing the medical men engaged in public health studies into contact with the rapidly increasing number of volunteer lieutenants and non-commissioned officers in the national sanitary army, and also with those public-spirited members of town councils and sanitary authorities who appreciate to the full their responsibilities in the health of their fellow citizens and are anxious to hear the studied opinions of experts for their future guidance. On the other hand, the experts themselves cannot fail to gain some profit from the views of such intelligent and philanthropic laymen as devote their time and money to the improvement of the public health, and more especially of those engaged in municipal administration who have the responsibility of spending the ratepayers money in the way most advantageous to their towns. The importance of such coöperation was recognised to the full by the organisers of the Congress, who devoted a section to representatives of municipalities, in which medical officers of health had the opportunity of meeting aldermen, bailies, councillors, engineers, and architects, all of whom were able to give their views in the course of such instructive discussions as arose out of the address by the Lord Mayor of Leeds (Alderman F. J. Kitson) on the sanitary evolution of that city. In this debate Mr. Percy Robinson made some trenchant remarks on town planning in relation to health, in the course of which he accused our nation of a lack of "that artistic spirit and civic pride which is so characteristic of our continental neighbours," and urged the formation of advisory committees of architects, artists, representatives of educational and other bodies to assist municipal authorities in the development and rebuilding of city areas. Mr. F. E. Fremantle, medical officer of health of Hertfordshire, followed this paper with an account of Letchworth Garden City in relation to the Town Planning Bill, in the course of which he uttered a strong protest on the detrimental effect which the present Finance Bill must have on the development of the city. Another section to which particular attention was directed was that devoted to child study, in which the health-workers and home-visitors gave free expression to their experiences. The topic which lies at the root of the public health of the next generation was not confined to this section, but occupied the attention of a plenary meeting of the Congress, which Dr. George Newman, medical officer to the Board of Education, addressed on Child Mortality in Relation to the Health of the State, dwelling particularly on the ill-effects suffered by infants as a consequence of the bad health of their mothers. Dr. Newman considers that all future effective preventive medicine must start with the home and "must deal more with the home than the house," but that the State must do its work by educating parents and not relieving them of their responsibility in their children. He cannot see in compulsory military service a panacea against physical degeneration, for it affects neither the boy, the man who is organically unfit for service, nor the woman, the factor on which the health of the race most depends. "The true and radical method of physical improvement," said Dr. Newman, "is to lay the foundations deeply and broadly upon healthy childhood. ..... By these means we shall, to use Pasteur's noble words, extend the frontiers of life." A discussion that produced some vigorous expressions of opinion was on the training of girls in the duties of motherhood, which Colonel Harding, the President of the Congress, took to be the main object of a woman's education. One speaker seemed to trust the mother's "instinct" to do what is right for her baby without being taught, but others, notably Alderman Broadbent of Huddersfield fame, strongly advocated the practical teaching of girls in the proper methods of caring for live babies, and he expressed thorough disgust with those teachers who are content to set schoolgirls to wash rubber dolls. Mrs. Scharlieb, M.D., contributed a useful plea to this discussion, in which she showed her appreciation of the unstable psychology of many adolescent girls, especially with regard to their romantic friendships, and urged that "the conspiracy of silence amongst school teachers and parents should be ended and boys and girls taught to realise their responsibilities." Another notable paper was Dr. Arthur Newsholme's address to the section of preventive medicine on the subject of communal action against tuberculosis, in the course of which he rebuked those municipalities which "built extravagant town-halls whilst the water-supply of the town remains impure, or provides Turkish baths, as in some towns in Yorkshire, whilst back-yards and streets remain unpaved."

Death of the General Manager of the Infirmary.

The announcement of the sudden death of Mr. T. Blair, the general manager of the infirmary, will be received with great regret by a very large number of medical men, and many generations of former residents will be reminded by the announcement of a genial and courteous officer and of one who always held a high place in their respect and esteem. The following motion, proposed by Mr. Charles Lupton, was carried at the weekly board meeting of the infirmary:—

The weekly board of the General Infirmary at Leeds desires to record its sense of the great loss which the infirmary has sustained in the death of Mr. Blair, who has held the responsible post of general manager of the institution since March 21st, 1876. Coming as he did when the infirmary was doing less than half the work which it now carries on, he has watched its growth with the utmost interest, and has himself been one of the chief factors in the large measure of success which has been obtained. Ever vigilant in watching expense, and earnest in increasing the efficiency of the institution, his genial manners and personal courtesy have rendered him a valued friend of the members of the weekly board and honorary and resident staff, and have earned the gratitude of the patients with whom he has had to deal. The board desires to express its deep sympathy with Mrs. Blair and the family in their bereavement.

July 27th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Home for Epileptics at Maghull: the Treatment of Epilepsy.

THE annual meeting in connexion with the Home for Epileptics, Maghull, was held on July 17th, at the institution, in the presence of a large gathering, over which the Lord Mayor of Liverpool presided. The report stated that the record of the year 1908 was one of rapid progress, the increase in the number of inmates being no less than 46, owing to the additional accommodation afforded by the new Chilton home for children. There remained in the institution on Dec. 31st, 1908, 259 patients, classified as follows: First-class, 10 males and 2 females—12; second-class, 29 males and 24 females—53; third-class, 103 males and 91 females—194. The admission of the large number of children which the Chilton home would accommodate—at least 40 boys and 30 girls—greatly added to the responsibilities of the management. Not only had regular school teaching, approved by the Board of Education, to be carried on, but in the case of these patients, even more than in that of ordinary children, it was necessary to give at least elementary industrial training. As time went on the question would arise as to what is to be done with them on reaching the age of 16 years. In cases where they were paid for by their friends or by boards of guardians, no doubt they would be allowed to remain in the institution. In other cases this might not be possible, and they would return to ordinary life without such a preparation as the home might give them if a few years longer could be spent under its treatment and training. This was an important question to be considered by public authorities.

The Royal Commission on the Care and Control of the Feeble-minded went so far as to recommend in its report that persons who could not take a part in the struggle for life, owing to mental deficiency, should be afforded by the State such special protection as might be suited to their needs, and that this protection should be continued as long as was necessary for their good, in their own interest and in that of the community. This would apply to a considerable proportion of epileptic persons, and the needful care and control could never be applied with better results than during their youth. With regard to the general treatment of those suffering from epilepsy, the experience of the 20 years during which the home had been open had entirely confirmed the view taken by the medical staff that along with medical treatment adapted to the individual patient and suitable nursing when required, but still more with the continuous supervision of trained nurses and attendants, the most important factor was occupation and the exercise of mind and body which it brought. No healthy person could remain idle with impunity without deterioration of mind and body. Still less could a person afflicted with epilepsy do so. Naturally sluggish as a rule, the patients require the stimulus of steady duties, which must be performed, and under such stimulus they almost invariably improve in mind and body. In all departments where there were continuous duties involving responsibility a certain number of paid offices had been created for the purpose of giving encouragement to those holding them. In this way a sum of £94 odd was paid to patients engaged on the farm and nearly £68 to those engaged on certain general work, altogether reaching over £162. Although the rate of remuneration was necessarily small the good result was manifest, as the system had the effect of stimulating all the patients through the general desire which exists to qualify by steady work for the status of a paid worker. Owing to the crippled state of the finances the current demands for necessary additions and extensions had made the liquidation of the £2842 due on the children's home an impossibility. This is much to be regretted. The Lord Mayor alluded in complimentary terms to the management of the home and the good results accruing from the treatment of the inmates. Dr. F. W. Mott (London), in supporting the adoption of the report, said the system of dealing with epileptics at Maghull had been copied in London. The fact that epilepsy caused insanity was a point of view of great importance, and their object was to prevent mental deterioration, if they possibly could, by taking the children at an early stage and placing them under the most favourable conditions possible. He ventured to assert that many of those demented epileptics would not have been in the condition they were if they had been treated early in a colony such as the one at Maghull. Dr. J. M. Rhodes (Manchester), in moving the re-election of the committee, said that in the colony system the patients retained their individuality more than they did in the great block asylums, and whether it was epilepsy or insanity the colony system, such as existed at Maghull, was the right style to build upon. By providing such places a splendid work was being done in training patients to be as useful as possible. He asserted that from 15 to 20 per cent. of the prisoners in the gaols to-day were either epileptics or mentally deficient. It was cheaper to maintain them in colonies than in gaols.

Infectious Diseases in Liverpool.

At a meeting of the port sanitary and hospitals committee of the city council held on July 22nd the medical officer of health reported that during the two weeks ending July 21st the number of cases of infectious disease reported and the number removed to hospital were as follows: scarlet fever 114, removed 80; diphtheria 35, removed 21; typhoid fever 8, removed 8; measles 65, removed 31; totals, 222 and 140. The total cases in the city infectious hospitals were as under: scarlet fever, 509; diphtheria, 73; typhoid fever, 21; phthisis, 51; measles, 101; isolation cases, 78; total, 833. The experience in Liverpool, as in other large towns, is that, simultaneously with the closing of the schools for the holidays, infectious disease begins to decline. For the last three months scarlet fever has been very prevalent in the city, but this week's statistics show that the fresh cases reported had fallen to 52. A month or six weeks ago the new notifications averaged over 100 a week. At the present time there are 509 scarlet fever cases in the infectious hospitals, which is a considerably decreased total. Over 700 had been in hospital for some weeks, amounting to less than 1 per 1000 of the population. It would thus appear that the school is the chief agent in the spread of that disease.

Liverpool Convalescent Institution at Woolton.

The thirty-fifth annual meeting of the Liverpool Convalescent Institution was held on July 10th. The Lord Mayor was in the chair, and amongst those present were the Bishop of Liverpool and Mrs. Chavasse and Sir William H. Tate. The report was very satisfactory. This magnificent resort for jaded and weakly persons renders a service of immeasurable value to the city in enabling enfeebled bread-winners of working-class families to be restored to health and vigour. The Bishop remarked with his usual vigour on the benefits and the picturesque surroundings of the home, and described it as a paradise outside and a palace of delight within.

Payments for Maintenance in the City Infectious Hospitals.

The port sanitary and hospitals committee, after due deliberation, is unable to recommend that a charge be made for patients taken to the corporation infectious hospitals. An exhaustive inquiry into the matter has convinced the committee of its impracticability, because a residence is not always a clue to the occupant's means, because patients or their friends claim the right of the use of the hospitals as ratepayers, and because inquiries, unless very carefully conducted, "tended to obstruct the objects of the committee in effecting the isolation of the sick." Other large cities have had a similar experience, and have abandoned the idea owing to the difficulties in collecting payment.

The Liverpool Dispensaries.

The committee of the above institutions, being obliged to rebuild the premises in Richmond-row (East Dispensary), at an estimated cost of £3400, has just received from Sir William Hartley a cheque for £588 towards the cost. The amount of donations to date, including a promise of £500 from the late Earl of Derby, is £2840, and the committee is anxiously appealing for further aid to enable the building to be opened free of debt. The formal reopening is expected to take place at the end of August. The dispensaries are almost the oldest of the Liverpool charities and are of incalculable benefit to the Liverpool working class.

July 27th.

NEWCASTLE-UPON-TYNE.

(FROM OUR OWN CORRESPONDENT.)

The Departure of Sir Isambard Owen.

THE appointment of Sir Isambard Owen to the Vice-Chancellorship of the Bristol University has been notified. This means that the distinguished Principal of the Armstrong College (formerly the Durham College of Science) of Durham University will resign the position which he has held here since 1904. It may be remembered that Sir Isambard Owen gave up the actual practice of medicine in London, where he was physician to, and lecturer in medicine at, St. George's Hospital, to turn his complete attention to educational matters, in which he has always interested himself. He has been Deputy-Chancellor of the University of Wales since 1895. Latterly, apart from his actual superintendence of the affairs of Armstrong College, he has been energetic in connexion with the University of Durham Bill. His departure will be regretted exceedingly in Newcastle-upon-Tyne, where he has made many friends by reason of his geniality and extreme earnestness, and it is greatly to be hoped that his new appointment will not mean the withdrawal of his valuable opinion and advice concerning things educational in the north of England.

Feeding of Dairy Cows.

The Durham county council education committee has issued a report containing the results of experiments carried out at Offerton, Durham, by Mr. S. H. Collins, M.Sc., of Armstrong College, and by Mr. F. P. Walker, B.Sc. The experiments, which were conducted during the summers of 1907 and 1908 and the winter of 1907, were directed to two

ends: firstly, to determine the result on the milk of feeding with brewers' grains; and secondly, to show what possibility there might be of the transference of boric acid from the food of cattle to their milk. As regards the first the conclusions drawn are: 1. That a moderate amount (20 pounds) of brewers' grains per day increases, for a certain time at any rate, the yield of milk, and that this period of increase has its limit. A corollary of this is that the practice of changing the diet of the animals is a good one. 2. There is no appreciable diminution of the fats under the diet, that is, as to the daily yield, but the fat of the morning yield is lowered more frequently. 3. No change was noted in the non-fatty solids. 4. There was no notable change in the live-weight of the cattle. It must be remembered that these results were obtained when the grains were used in moderate quantities only, with good additional artificial foodstuffs. As regards the conclusions under (2)—the lowering of the morning fat—this would mean that brewers' grains are not to be recommended, especially when the 3 per cent. standard is also taken into consideration, but for ordinary dairy cows it would appear that such grains may safely be used, the stock being otherwise well fed. The second group of experiments is also interesting, the point of these being to answer the question, "Can boric acid get into milk as the result of feeding cows on food containing boric acid?" These investigators state that it can, but they add that the amount is so small as to be negligible from the point of view of its preservative properties. If the milk contain more than 0·1 per cent. of the acid this last has probably been added. If present in less quantity than 0·01 per cent. the food of the cow may be responsible. Between these two limits is uncertainty as to its origin, but inasmuch as 0·25 per cent. boric acid is needed to keep milk sweet there should be no doubt as to whether the acid is derived from the food or has been added to the milk. The experimenters state that, using small quantities of boric acid in the food, one-sixtieth part reaches the milk. They further add some observations which raise the old difficulty of dealing with milk samples—viz., how long may milk stand at rest without making the part withdrawn differ markedly from the bulk? A large vessel with a tap at the bottom was used and samples taken from the top of the vessel and from the tap at various times. They concluded that in fairly high temperatures the samples obtained after only a few minutes' rest are useless as representing the bulk; with lower temperatures the error is not so great.

Durham University.

A convocation for the purpose of conferring degrees was held at the Durham University College of Medicine in Newcastle-upon-Tyne on July 24th. The degrees were conferred by the Sub-Warden, Professor F. B. Jevons. The majority of the degrees conferred were medical, and the recipients were the successful candidates from the recent summer examinations held in the University. The candidates were presented by Sir George Hare Philipson (President of the College) and by Professor F. Page.

July 26th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Chair of Surgery in the University of Edinburgh.

AS was intimated in THE LANCET last week Mr. Henry Alexis Thomson was selected by the Board of Curators to fill the Chair of Surgery vacated by Professor J. Chiene. Mr. Thomson graduated at Edinburgh in 1885; four years later he took the degree of M.D., obtaining a gold medal for his thesis on "Tuberculosis of the Bones and Joints." He has from the outset of his career devoted himself to surgery and at the time of his appointment to the Chair of Surgery held the post of surgeon to the Deaconess Hospital and assistant surgeon to the Royal Infirmary. He has made many valuable contributions to the literature of surgery, but the work which has made his name most widely known is the "Manual of Surgery," which he published in conjunction with his colleague, Mr. Alexander Miles. This work is used largely in the British and American schools and has reached a third edition. Mr. Thomson has been a teacher and a lecturer to students almost from the time he graduated and has for years been an examiner in surgery, while his application was supported by testimonials from well-known surgeons in Britain, America, and on the Continent, who bore witness to the excellence of his surgical work and to the place he held in the estimation of his surgical *confrères* throughout the world. Mr. Thomson is 45 years of age, and has thus the prospect of many years of work before him, and the opportunity of not only upholding, but of adding to, the honour and dignity of the chair he has been selected to occupy.

University of Edinburgh: Medical Graduation Ceremonial.

The medical graduation ceremonial in the University of Edinburgh was held on July 23rd, the chair being occupied by the Vice-Chancellor, Principal Sir William Turner, K.C.B. While the ceremonial at this date is mainly given over to graduation in medicine it is not confined to this, and considerable additional interest was added to the proceedings by the presence and the conferring of the degree of LL.D. on the Right Hon. George Wyndham, M.P., the Lord Rector of the University. This honorary degree was also conferred on Madame Curie *in absentiâ*. After these had been conferred the Dean of the Faculty of Medicine presented 59 men and five women for the degree of M.D. Seven of the men received gold medals for their theses and one of the women got "highly commended." The degree of Master of Surgery was conferred on two men. Thereafter 93 men and 10 women were presented for the degree of M.B., Ch.B. The Ettles Scholarship was awarded to Mr. Robert Coltart Harkness as the best graduate of the year, while the Dorothy Gilfillan Memorial Prize was awarded to Miss Mary Muter Gardner as the best woman graduate. The graduates were addressed by Sir Thomas Fraser, the Promoter, who mentioned that that was the third occasion on which he had addressed the graduates, and that now not one of those remained who constituted the Faculty of Medicine when he first joined it. He referred to the losses the faculty had experienced recently by the death of Professor D. J. Cunningham and the resignation of Professor J. Chiene. He then referred to the advances which had been made in the University during the past 15 years in the encouragement of original research, and said that now higher education by research had established for itself a firm position in their university system its further development might be regarded as assured. Instead of a university being regarded merely as an institution for imparting acquired knowledge, and at which the growth and extension of knowledge were ignored, so remarkable had been the appreciation of the value of scientific research in this country that there were now institutions whose sole function was original investigation. Among the first of these to be instituted were the research laboratories of the Royal College of Physicians, Edinburgh. For the university the ideal was the appropriate combination of both purposes. He referred to the need of new special courses being established, as had been done in public health. Whatever might be the future work of those before him they would recognise that research and advanced study in special departments of medicine merely constituted two of the methods by which the power of observation and judgment might be trained and the mind taught to appreciate truth and to strive to obtain it. Luncheon was afterwards given in the University Union in honour of the honorary graduate, Mr. Wyndham.

July 27th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Tuberculosis Prevention (Ireland) Act: Dublin County Council.

AT the adjourned quarterly meeting of the Dublin county council, which was held on July 22nd, a communication was submitted from the Kingstown urban district council stating that it had decided to adopt Part I. of the Tuberculosis Prevention (Ireland) Act, 1908, subject to the approval of the county council, and applying for the necessary approval. The provisions of the Act were explained by the solicitor to the council, who pointed out that any sanitary authority could adopt the Act, but that the adoption was subject to

the approval of the county council. A considerable amount of discussion followed, and had the effect of eliciting the principal arguments which have from time to time been advanced both for and against the working of the Act's most important clauses. One member expressed the opinion that the meaning of the Act was that people who should be pronounced to have this disease would be banished from society and from their friends for ever. The chairman pointed out that such persons were removed to the most suitable surroundings that science could devise to improve their condition, while in addition to the enormous advantage to the sufferer the public at large were saved from the possibility of infection by contact. Another speaker asked whether any remuneration was provided for the rest of a family in case the bread-winner was pronounced to be a victim of tuberculosis. If there was not, he would be very slow to "put him away." One of the speakers stated emphatically that if the people of Kingstown had been consulted the adoption of the Act would have been opposed by fully 90 per cent. The matter had come on them as a surprise. The secretary of the council then read a resolution which had been forwarded by the Kingstown Municipal Reform Association expressing disapproval of the adoption of Part I. of the Act, and requesting the county council not to sanction it on the grounds that, if enforced, "it would be injurious to the interests of Kingstown as a health resort, and would inflict serious injury on the poor." In the course of the subsequent part of the discussion it was observed that in a chronic case a house would have to be disinfected every week, and the result would be to have the inhabitants branded at once as lepers—and for life. The feeling of the meeting was demonstrated by the decision to postpone the consideration of the matter for 12 months. The discussion and resulting decision are highly instructive with regard to the present state of opinion on the subject in Ireland.

Belfast Lunatic Asylum.

Dr. William Graham, medical superintendent of the Belfast District Lunatic Asylum, has issued his annual report for the year ended March 31st, 1909. Financial tables for the year ended March, 1909, are appended. There were 266 admissions—the same as for 1904—or about the average of the past five years. Among the asylum constituency there are three classes which should not, as a rule, be treated in a hospital for mental diseases. These are the alcoholics, epileptics, and the criminal insane. The first should be, Dr. Graham advises, sent to an inebriate home; the second ought to be treated in colonies; and the third by their presence interfere with the true ideal of a hospital, as they tend to deepen the stigma which despite everything is still attached to asylum life by the popular mind. Having dealt most exhaustively with the causes and treatment of insanity, Dr. Graham gives the history of the year, during which 82 patients recovered and 37 were discharged as relieved. The ratio of recoveries to the total number of admissions was 30·8 per cent. There were no deaths from accident or suicide. The most notable event of the 12 months was the acceptance of tenders for carrying out the villa colony buildings at Purdysburn, the works of which are now in progress. Appended to the report is a most satisfactory memorandum of inspection in December, 1908, by the Government inspector, Dr. E. M. Courtenay.

Belfast and the Tuberculosis Prevention (Ireland) Act.

The public health committee of Belfast has decided to postpone for a time the question of the adoption or not of the Act. A very strong memorial from the Belfast Branch of the Women's National Health Association of Ireland has been presented to the public health committee urging the adoption of the measure.

July 27th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Relationship of Variola and Vaccinia.

THE question whether variola and vaccinia are or are not modifications of the same pathological process is an important point upon which medical opinion is divided. Inoculation of the human subject with bovine vaccinia is a protection against variola, but does the converse hold good—that is, does inoculation of a cow with human variola protect it against an attack of vaccinia? It appears that the views of the German observers on this subject are diametrically opposed to those held by the French, but M. Kelsch and his scientific fellow-workers have recently suggested an explanation of this singular divergence. The explanation is to the effect that the French experiments have been made with great care, precautions being taken to isolate the animals after inoculation, but the Germans leave them in the cow-houses of the vaccination stations where the proximity of cows already inoculated with vaccinia suffices to bring about contagion. It is therefore not variola which they transmit in this way; it is vaccinia which manifests itself by air-borne contagion. In order to prove this M. Kelsch inoculated three heifers *à blanc*—i.e., with glycerine only; they were left in the general cow-house and between the sixth and seventh days characteristic vaccinia pustules appeared at the points of inoculation. Now if variola had been inoculated in place of glycerine a success would inevitably have been registered to the credit of the German opinion.

Vaginal Hysterectomy.

At a recent meeting of the Society of Paris Surgeons M. Brochin called attention to the importance which his teacher, the late Professor Péan, attached to vaginal hysterectomy, and he expressed regret that this operation had now fallen into disuse. Professor Péan employed it in the removal of fibromata even when of considerable size, in bilateral inflammations of the adnexa, in metro-salpingitis, in pelvic suppurations, in cancer of the cervix, and in prolapse of the uterus occurring subsequently to the menopause. For small fibromata in particular vaginal hysterectomy was an excellent operation, exposing the patient to the least possible danger; and even in cases of bilateral inflammations of the adnexa, pelvic suppurations, circumscribed cancer of the cervix, and uterine prolapse the operation might be of the greatest value in expert hands. M. Péraire declared himself to be of a different opinion and maintained that there was good reason for this method of hysterectomy being almost completely abandoned in France. With this operation it was not possible to form an opinion as to the state of the lesions, and several dangers were associated with it, such as probability of débris being left behind and the bladder being wounded, infection of the peritoneum, compression of the ureters and intestine, and hæmorrhage. He did not think that vaginal hysterectomy was advisable in either fibroma or cancer or prolapse of the uterus or in pelvic suppuration. In prolapse of the uterus hysteropexy was sufficient, and in the other conditions above mentioned, abdominal hysterectomy was to be preferred, now that successive improvements in the mode of performing the latter operation have rendered it comparatively safe. M. Paul Delbet took the side of M. Brochin, considering vaginal hysterectomy to be an excellent operation in some circumstances. In cases of cancer vaginal hysterectomy was, in his opinion, only a palliative; complete abdominal hysterectomy was the proper treatment, and 12 such operations performed by him had been successful. Vaginal hysterectomy produced less shock and was a suitable procedure in pelvic inflammations which were neither cold nor diffuse (*non refroidies ou mal limitées*), as well as in fibromata not rising more than four fingers' breadth above the pubis and not having too great a transverse diameter.

Legislation Relative to the Use of White Lead.

Both the Senate and the Chamber of Deputies have now passed the Bill regulating the use of white lead until such time as the use of this substance by painters will be entirely prohibited. In workshops, shipbuilding yards, houses in course of construction or repair, and generally in every place where painters are at work, the heads of firms, directors, and managers are bound, independently of the measures prescribed for the health and protection of the workmen, to conform to the new ordinance. At the end of the fifth year following the promulgation of the present law the employment of white lead, of linseed oil containing white lead, or of any special product into which white lead enters will be prohibited in work of any kind whatsoever done by men engaged in the painting trade, whether inside or outside buildings. A regulation of the public authorities, drawn up in accordance with the advice (1) of the consulting

committee of arts and manufactures, and (2) of the commission of industrial hygiene will be required for the performance of any special work for which relaxation of the provisions of this law may be required. The inspectors of factories and workshops have instructions to see that the law is enforced, and for this purpose they may enter any of the places mentioned above, with the reservation that if the places in question are habitations (*locaux habités*) the inspectors must previously obtain the permission of the occupants. The new law will be promulgated before the end of the present year. The prohibition of the use of white lead will, therefore, not come into force until Jan. 1st, 1915.

Treatment of Hydatid Cysts of the Spleen.

At a meeting of the Surgical Society held on July 7th several members described the results obtained by them in the treatment of hydatid cysts of the spleen. One of the patients was a man, 52 years of age, under the care of M. Bazy, who approached the tumour by an incision parallel to the external border of the rectus muscle, punctured the cyst, and applied formol to the cavity with subsequent drainage; this was followed by an uneventful recovery. M. Potherat said that in these cases he was generally in favour of splenectomy, which did not appear to him to be objectionable as the gland was already diseased. M. Ricard said that he had operated on a boy six or seven years of age who suffered from an enormous hydatid cyst of the spleen—so large, in fact, that it was supposed to be a hydatid cyst of the liver. The spleen was of normal appearance, but formed a kind of cap to the cyst. In this instance the idea of splenectomy did not occur to him; he reduced the spleen and "marsupialised" the cyst. A second operation had to be performed on account of a hernia consecutive to the marsupialisation. The ultimate result was excellent.

The Academy of Medicine.

A decree has just been issued authorising the Academy of Medicine to accept a bequest of 25,000 francs, the income of which accumulated for three years will serve to found a perpetual triennial prize. This will be called the Potain prize, and will be awarded to the best work on clinical medicine which has appeared during each triennial period.

July 27th.

ITALY.

(FROM OUR OWN CORRESPONDENT.)

Parliament and Public Health.

AMID the "sound and fury" of the debates that turned the Chamber of Deputies into a bear-garden in the last weeks of the session the "still small voice" of science was occasionally heard in the interests of public health and in vindication of legislative comity. Dr. Gaetano Pieraccini of Florence, for one of whose constituencies he sits as an advanced Liberal and in whose medical school he fills with credit the post of privat-docent in "patologia medicale," put some searching inquiries to the Minister of Agriculture, Industry, and Commerce on the protection of the labourer and the working-man in the discharge of his *métier*—inquiries prompted by the findings of the recent Congress on the maladies incurred in city factories and inland mines. He pointed out that ankylostomiasis—an eminently contagious parasitic disease—has recently assumed a novel development, the germs of which have been imported from America by Italian emigrants returning to their native land. The "lavoratore della terra," already scourged by pellagra and malaria, can ill afford this third perquisition levied on his vitality and strength, and the dictates of economy, as well as humanity, call loudly for his protection from the said pathological exaction, while such indemnity should be assured him as will enable him to meet the expenses of prophylaxis and cure. His Excellency Signor Cocco-Ortu, the Minister above referred to, replied that special studies in the new malady were in progress by a commission under his department and that the prophylaxis urged by Dr. Pieraccini was being considered by the Direzione Generale della Sanità Pubblica, which took its orders from the Minister of the Interior. The "Circumlocution Office," it will be seen, is not unknown in Italy, but let us hope that the persistence and scientific strategy of such sanitary reformers as Dr. Pieraccini will ere long succeed.

The State Provision of Quinine against Malaria.

At a previous sitting Dr. Angelo Celli, another representative of the medical interest in Parliament, and also known and esteemed as professor of hygiene in the Roman school, invited the Government to add to its supply of quinine in the malaria-haunted districts a special preparation for the use of children of tender years, thousands of whom, he showed, fall victims to the disease. Congratulating himself on the augmentation of the money grant to the Red Cross in its anti-malaria crusade, and urging the still further facilitation of the exhibition of the drug, Dr. Celli elicited from Signor La Cava, the Minister appealed to, the reassuring announcement that the grant has this year been augmented by 30,000 lire (£1200). As too often occurs in the administration of money grants, the deflection of a State subsidy to extraneous uses is (Dr. Celli was sorry to show) not unknown in the malarious districts, and steps are, on his initiative, to be taken to secure the bestowal of the money on none but the parties for whom it is intended. This malversation notwithstanding, the disease is in continuous diminution—a result which, Dr. Celli thinks, will be still further in evidence when, to the preparations of quinine already in use, the tannate is added—a form of the drug which is by far the most easily digested, while it has none of the adventitious disadvantages of those combinations of arsenic and iron in which it is too often exhibited.

Births, Deaths, and Marriages.

The number of infants born alive in 1907 (the last statistical year) was 1,062,233, or 31·45 per 1000 of the inhabitants, a figure rather below that of the two years preceding. The greatest number of births was in January (100,491), the smallest in December (80,346). The number of male children exceeded that of the female—545,994 of the former to 516,339 of the latter—i.e., 1057 males for every 1000 females. The illegitimate births and foundlings amounted in all to 55,571, of whom 33,554 were recognised in the act of birth by at least one of the parents. The total of infants born dead in 1907 was 48,023. The multiple births were 12,963, the majority being in the Emilia, the Marches, in the Venetian territory, and in Latium. In 1907 there died in all Italy 700,333 individuals—i.e., 20·73 per 1000. In the great cities the mortality was somewhat higher than in the rest of the kingdom. The number of deaths is every year lower than that of the births, thus explaining the steady increase of the population. The influence of the seasons on mortality is heavy from December to March, diminishing thereafter to June, while accentuating itself in the two succeeding months of the summer and being mildest in the two succeeding months of the autumn. The deaths in 1907 were distributed in the proportion of 354,109 males to 346,224 females, or 102 of the former to 100 of the latter. Infantile mortality is in appreciable diminution, in keeping with the improved public hygiene. The marriages contracted in 1907 were 260,104—i.e., 7·70 per 1000 inhabitants. In 1906 the figures were 7·77 and in 1905 7·67. In the great communes the nuptial rite is usually rarer than in the country districts—the month most propitious to it being February with 29,770 marriages, and the least so being August with 14,430. The mean age of the couples in 1907 was, for the "celibi," that of 27 years 3 months; for the "vedovi" (widowers) 44 years; for the "nubili" (marriageable) 23 years and 9 months; and for the widows 41 years and 5 months. "Analfabetismo" (inability to read, write, or cypher) in married couples is diminishing. In 1907 the marriage lines were underwritten by 186,275 bridegrooms and 155,403 brides; not underwritten by 73,229 of the former and 104,701 of the latter. In 1872 the figures were the following: bridegrooms who underwrote the marriage lines, 88,589; those who could not, 113,772; and for the brides respectively, 50,017 and 152,344. Piedmont and Lombardy show fewest "analfabeti," the southern provinces most, principally in Reggio Calabria, Cosenza, and Catanzaro.

July 24th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Prevention of Accidents during Anæsthesia.

A DEPLORABLE misadventure happened recently in one of our large hospitals, a person who had applied for advice in

the out-patient department dying under anæsthesia, which had been induced for a minor operation. This sad occurrence has caused the Home Secretary to issue an instruction to all boards of health and hospital boards, calling their attention to the necessity of laying down definite uniform rules for similar purposes, and as a consequence all medical men and medical corporations have received the following official communication: "In order to prevent accidents to patients during general anæsthesia the following points must be strictly adhered to. Nobody may give chloroform or any other anæsthetic to a person for the purpose of operation or exploration unaided, unless he is a fully-qualified medical man, having sufficient personal acquaintance with the required technique. If two or more practitioners are present at the anæsthesia one must be perfectly experienced in the work, and in that case another may administer the anæsthetic under the responsibility of the first mentioned individual. In hospitals where there is only one medical man another practitioner should be called in for the occasion. The conditions of the anæsthesia must be determined by the responsible individual. Special attention must be paid to the purity of the chemicals used, and an abundant supply of fresh air to the operating room is necessary. A patient must be detained in hospital after anæsthesia at least until all effects of the narcosis have passed away, and on leaving must be accompanied by a person who has been instructed how to take care of the patient in case anything unexpected occurs." In Austria accidents during anæsthesia are very rare. The out-patient departments in particular have hitherto been nearly entirely free from such occurrences. Here the "open-air method" is the one generally preferred, and general anæsthesia is resorted to only when absolutely necessary. The removal of tonsils or adenoids, extraction of teeth, paracentesis of the tympanum, operations on the nasal walls, and other minor operations are performed either without an anæsthetic or under only partial or local anæsthesia. Special care is taken to find out before operation whether the patient is liable to hæmophilia or suffers from the status thymicus. The researches of Dr. Paltauf of Vienna have done much to keep the Vienna surgeons aware of the latter possibility and to cause them to search for it in every case previously to the administration of an anæsthetic.

Historical Researches on Syphilis.

In a recent paper read before the Gesellschaft der Aerzte Dr. Kronfeld gave an account of his researches as to the origin and antiquity of syphilis. The belief is that syphilis made its appearance in Europe in 1493, when the sailors of Columbus returned from the discovery of America, and that the disease then spread like an epidemic over nearly the whole of Europe. Against this hypothesis must be placed the facts that the disease does not now show this pandemic character and that the writings of Hippocrates and Martial contain passages which seem to indicate that syphilis was known in their time. It is certain that remedies containing mercury were used in antiquity against certain ulcerative processes of the skin. Dr. Kronfeld has now found a Greek vase dating from the seventh or eighth century B.C., which shows very clearly a dark coloured woman, of negro type, presenting chronic serpiginous ulcerations on her arms and legs, attacked and slain by a Greek woman of unblemished purity of the skin. The ulcers might be due either to leprosy or to syphilis, but leprosy can be excluded by the appearance of the figure. One is therefore led to conclude that syphilitic lesions must have been known 22 centuries before the discovery of America by Columbus. Again, the popular names of the disease in the various European countries exhibit the peculiarity that each nation ascribes the introduction of syphilis within its own area to its enemies. Thus the French call it *mal espagnol, mal anglais, mal indien;* the Spaniards call it *il mal francez;* the Germans also derive it from the French nation; in England "Spanish sickness" was once a familiar term; and the Turks call it "Christian illness." All over the world it is known, and everywhere the same remedies—namely, preparations of mercury, copper, and certain herbs—are used against it. There is no one country to which its origin can be attributed, and no age limit can be positively assigned to it. If vases and other objects of art are examined with this view perhaps more proof will be obtained that in earliest history syphilis was a source of much suffering.

Cerebro-spinal Meningitis in Austria.

The report of the Board of Health dealing with the epidemic of cerebro-spinal meningitis in Austria in 1906–1908 has just been published, and the following facts are worth mentioning. The disease appeared late in 1906 in the north-eastern part of the empire, and soon it was clear that its spread was very difficult to suppress. The cold and wet parts of the country were much more affected than the hot dry parts. The mountainous districts remained nearly immune. The number of cases in 1906 was 1506, with 853 deaths (56 per cent.); in 1907 it fell to 803 cases, with 461 deaths (58 per cent.); and last year it was 504 cases, with 263 deaths (53 per cent.); altogether, there were 2823 notified cases, with 1577 deaths (56 per cent.). The constant decline of the morbidity was certain, but the mortality could not be brought down so successfully. The prophylactic measures recommended by the Board of Health after repeated *enquêtes* and investigations were isolation of diseased persons and discontinuance of the attempts to immunise the "germ carriers" by pyocyanase. The sanguine hopes reposed on the latter substance have not been justified. In spite of repeated sprays and washes of the nose of the "germ carriers" with this liquid, cocci could be shown for weeks afterwards. The results obtained with the meningococcus serum, however, have been so encouraging that the universal adoption of this method of treatment, besides the other ones, has been urgently recommended by the Board of Health. An intraspinal injection of at least 20 cubic centimetres of the serum should be made at once in the lumbar region and if the symptoms do not abate within 24 hours the injection should be repeated. All persons coming in contact with patients should be kept under observation. A search for "germ carriers" and their isolation is the best prophylactic method, as they are the foci of infection more than the patients themselves. The use of the serum has reduced the mortality by 50 per cent., and this year not only is the morbidity very low (170 cases, with 48 deaths, in the empire) up to July 1st, but also the number of fatal cases is much smaller. Observations are going on as to the ultimate fate of those who survive. Already it may be stated that the worst effect of the disease is the loss of hearing, tending to deaf-mutism, as mostly children under ten years were affected, whilst motor disturbances are rare. The cause of the deafness is either panotitis or an inflammation of the labyrinth. Serious mental disturbances have also been noticed, especially in grown-up people, but happily only in very few instances. The disinfection after an attack may be limited to the clothing and bedding used by the patient; disinfection of the house may be dispensed with as the germs are not able to live long outside the human body.

July 26th.

BUDAPEST.

(FROM OUR OWN CORRESPONDENT.)

The Early Diagnosis of Tuberculosis.

THE State Board of Health of Hungary has issued for distribution to the medical practitioners of the country a circular on the early recognition of tuberculosis, giving in a concise and systematic form all the information on the diagnosis of the disease to be obtained from a most exhaustive review of Hungarian and foreign medical literature. The increased attention directed to the prevention and treatment of pulmonary tuberculosis during the last few years has resulted in extensive scientific investigation, and the value of early diagnosis is shown both in prolonging the life of the patient and protecting those with whom he comes in contact. The medical men of the country are also reminded of the laboratories at the university and it is announced that examination of sputum of patients supposed to be tuberculous will be made without cost at any time. "Container stations" for the distribution of postal cases for the conveyance of specimens have been established, and wherever pulmonary tuberculosis is found to be exceptionally prevalent inspectors will be sent to assist in the investigation of the cause, and in taking the necessary steps to check the spread of the disease.

Food Preservatives and Food Adulteration.

At the recent meeting of the Royal Society of Medicine

Dr. Liebermayer read a paper on the above subject. He said that the necessity of preserving food in some way had been recognised since man emerged from his savage state. The development of the science of chemistry had placed in the hands of the manufacturer not only new means of preserving food but also means of adulterating it with regard to colour. He believed that the education of the public in regard to artificial colouring of foods would be quite as useful as legislation. Articles of food ought not to be treated with antiseptics, except when absolutely necessary, unless the consumer ordered it himself. Dr. Liebermayer thought that there was a legitimate use of sulphurous acid, as employed in the fumigation of dried fruits and the burning of sulphur matches in wine barrels, which method has come down from antiquity, but when sulphurous acid was used as at the present time in enormous excess for preserving a poor wine and putting on the market a new wine before it was matured, he declared its use to be unpardonable.

The Medical Corps of the Hungarian Honveds.

At the present time the conditions of appointment in the Medical Corps of the Honveds (home defenders) may be of interest to English readers. The candidate for examination must be between 23 and 36 years of age and must apply for permission to appear before a medical examining board. The application must be accompanied by letters or certificates from persons of repute testifying from personal knowledge to the good behaviour and moral character of the applicant. The examination usually occupies three days and is divided into three parts—namely, (1) physical, (2), professional, and (3) collateral. The subjects of the professional examination are anatomy and physiology, surgery, medicine, pathology and microscopy, obstetrics and medical jurisprudence, materia medica and physiological action of drugs, chemistry and physics, hygiene, general aptitude, and knowledge of the literary and scientific aspects of medicine. The collateral examination embraces languages, history, elementary botany, and zoology.

July 26th.

DONATIONS AND BEQUESTS.—By will the late Dame Emma Osborne of Nenagh and London has made the following bequests amongst others: £2000 to the Adelaide Hospital, Dublin, and £1000 each to the Brompton Hospital for Consumption and the Cancer Hospital, Fulham, the Victoria Hospital for Children, the London Fever Hospital, Walton-on-Thames Convalescent Home, and the Society for Prevention of Cruelty to Children.—The late Mr. G. Peters, J.P., of Gloucester, has bequeathed the residue of his property to be divided between the Gloucester Royal Infirmary and the Children's Free Hospital, Kingsholm, Gloucester, where a "Peters' bed" is to be endowed. It is estimated that these two institutions will each receive a sum of at least £6000.

OPHTHALMOLOGY AT OXFORD.—On July 15th, at a meeting in Keble College, it was determined to place the annual meeting of ophthalmologists at Oxford on a permanent footing. Mr. Sydney Stephenson moved, and Dr. R. A. Reeve (Toronto) seconded, the following motion:—

That the time has now come when it is advisable to place upon a permanent footing the annual meeting at Oxford of those interested in ophthalmology.

The motion, which was supported by Professor Deutschmann (Hamburg), Professor Motais (Angers), Professor Marc Dufour (Lausanne), Dr. Wendell Reber (Philadelphia), Dr. Vail (Cincinnati), Dr. L. Werner (Dublin), Mr. R. J. Coulter (Newport), and Dr. H. Walker (Glasgow), was carried without a dissentient voice. It was then moved by Professor W. Osler, seconded by Mr. F. M. Granger (Chester), supported by Professor F. Gotch, and carried *nemine contradicente*:—

That the Oxford Ophthalmological Congress be and hereby is constituted.

Lastly, on the motion of Dr. A. Hill Griffith (Manchester) and Dr. Rayner D. Batten (London), a provisional committee (with power to add to their number) was appointed to make the necessary arrangements and to report in due course. The committee consisted of Sir Anderson Critchett, Bart., Sir Henry R. Swanzy, Dr. George Mackay, Professor Osler, Dr. Hill Griffith, Professor Greeff (Berlin), Professor Dufour, Professor Deutschmann, Dr. Darier (Paris), and Dr. Reber, together with Mr. Robert W. Doyne as chairman and Mr. Sydney Stephenson as secretary.

THE BRITISH MEDICAL ASSOCIATION.

SEVENTY-SEVENTH ANNUAL MEETING AT BELFAST.

A QUARTER of a century ago the British Medical Association, under the presidency of Dr. James Cuming, enjoyed the hospitality of Queen's College, Belfast, and now those buildings, which during the past week have again welcomed the yearly Congress of the Association, are vested in an autonomous university. It is hardly necessary to add of an Irish body of hosts that the medical faculty of Queen's University, together with the reception committee of the Congress, have done everything in their power to make both the scientific and social sides of the meeting memorable to all who took part in it, and we can testify to the success which has crowned their hospitable labours.

In many ways the meeting recalled its predecessor at Sheffield. In both cases the visitor, entering the city by train, was repelled at first by the pall of smoke hanging over it; in both cases when he was being carried fast through it in excellent electric cars he found some compensation for the city's ugliness in the glimpses of hills and open country caught down many of its side streets; and in both cases, in order to take part in the proceedings of the Congress, he had to travel away from the busy heart of the city until he came to a large red-brick pile of buildings, with central tower and mullioned Tudor windows, enclosing the secluded quadrangle of a modern seat of learning. But 60 years of weathering have given the bricks of Belfast University a pleasant colour tone which its Sheffield fellow sadly lacks. And lastly, both cities are within easy reach of a delectable country, for whilst Sheffield is ringed round with the moorlands of Yorkshire, a short train journey carries the sojourner in Belfast away from its grimy thoroughfares to the wonderful coast where the mountains of Mourne run down to the sea.

The visitor to the city is soon impressed with the fact of its importance as a centre of industry. There is a busy aspect of things everywhere, and the factories with their huge chimneys speak of vast manufacturing processes. There are some beautiful buildings in the city, notably the city hall, but on the whole the eye meets with monotonous and unattractive lines of streets. It is the industries of Belfast which offer so much to study, and the members of the Association and their friends have visited the great shipbuilding yards, the distilleries, and the vast textile factories with the greatest interest. It is here that huge industrial problems arise as questions connected with the health and well-being of the operatives. The spinning mills and power-loom factories alone represent a capital of close upon twenty millions of pounds. The beautiful fabrics of Belfast and Ulster are known and appreciated the wide world over, and the same may be said of the large engineering works, the provision curing factories, the starch works, the flour mills, the aerated water works, and so forth, which contribute their share to the prosperity of the city.

Municipal enterprise is seen in the tramways and in the electric, gas, and water supplies. The last is under the control of the Belfast City and District Water Commissioners, the rapid expansion of the city having in recent years involved the laying down of new mains of large capacity. The water is derived mainly from the Carrickfergus district, some nine miles away from the city, but the supply is supplemented by a river-supply from the Leathemstown and Stonyford rivers.

The water possesses one important advantage in regard to domestic and manufacturing purposes; it is comparatively soft, showing about eight degrees of hardness.

Such commercial enterprise entails grime, but Belfast has done something to atone for her dirt with several impressive buildings, and the really noble pile, the City Hall, where the Lord Mayor received the visitors to the Congress on Thursday evening. There is, perhaps, no more impressive piece of civic architecture in the United Kingdom than this domed, square building of Portland stone, in the style of the Italian Renaissance, which Sir Brumwell Thomas designed for Belfast, and which was opened three years ago. The great staircase, hall, and reception-rooms are worthy of the dignified proportions of the whole, and the building is a monument to the prosperity of Belfast.

But medical visitors have been more naturally interested in the medical buildings and institutions of the city, and amongst these the Royal Victoria Hospital stands first. Our readers may remember a full description of it in THE LANCET, and will not therefore need an account of the structural details, but we may recall the outstanding features which caused a considerable stir in the hospital world at the time of its opening by the King in 1903. The ventilation of the hospital is on the plenum system throughout, the wards being top-lighted with windows not made to open, the air being pumped in through a tower holding two fans, each 10 feet across, and able to drive in 10,000,000 cubic feet of air in the hour. By suitable appliances this air is washed and warmed before its supply to the wards, and the inmates of the hospital testify to its satisfactory condition. The wards are built in one long row of 17 pavilions, each unit containing 32 beds for male and female patients in a single storey, with its own complete arrangements for service and sanitation, and each physician or surgeon has charge of a distinct unit. The ophthalmic and isolation wards and administrative buildings are in separate blocks from the main hospital. This seems to us to be a model arrangement for the saving of unnecessary trouble to all concerned.

The largest of the other Belfast hospitals is the Mater Infirmorum, which has 165 beds, and is nursed by Roman Catholic sisters, although it admits patients without distinction of creed. There are also the Hospital for Sick Children, the Ulster Hospital for Children and Women, which, with the Maternity Hospital, provides intern and extern treatment for the poor lying-in mothers of the city, a Samaritan Hospital for Women, an Ophthalmic, and an Eye, Ear, and Throat Hospital, a Skin Hospital, and a Hospital for Consumption named after the founder, Mr. Forster Green. The Union Infirmary, having 1500 beds and a maternity department, fulfils an educational function which is practically neglected by similar institutions in England, for it provides bedside instruction for the fifth-year medical students of the University. Whilst the Royal Victoria Hospital is naturally their chief centre of clinical work, most of the other institutions we have mentioned are affiliated to the medical faculty, which we may add has recently revised the old medical curriculum of Queen's College in a thoroughly comprehensive manner.

For those interested in the anti-tuberculosis crusade receptions were given during the week by the medical superintendents at both the municipal sanatorium at Whiteabbey and at the Forster Green Hospital and Sanatorium.

Medical education in Belfast dates back to 1827, when Dr. James McDonnell delivered the first clinical lecture, as we learn from the useful historical guide and handbook compiled by Mr. R. J. Johnstone. Within a few years the old Academical Institution appointed systematic lecturers in the medical sciences and in 1849 became the nucleus of the medical faculty in the newly opened Queen's College. The pioneers of medical education in Belfast after McDonnell were Henry MacCormac, professor of medicine; Samuel Browne, ophthalmologist; the Purdons; James Cuming; and Alexander Gordon, one of the greatest surgical teachers that Ireland has ever known, but the names held in special honour at Queen's University as leaders of the school are enumerated in Sir William Whitla's Presidential Address.

A notable building in Belfast is the Medical Institute, presented to the Ulster Medical Society as its headquarters by Sir William Whitla a few years ago. It has a handsome meeting hall and library, which contains a stained glass window commemorating the devotion of Dr. William Smyth, the hero of Arranmore. There are few medical societies in the kingdom that can show so commodious a home, and few that do more energetic work in justification of a dignified environment.

The work of the sections of the present meeting of the Association has been arranged a little differently from last year. Dermatology and Electro-Therapeutics have been taken together, as have Anatomy and Physiology. The section of Pharmacology and Therapeutics has been revived, and an exceptionally interesting departure has been made in the establishment of a section for Hæmatology and Vaccine Therapy, of which Sir Almroth Wright was the natural president both by accomplishment and by birthright. The debates of this section were strengthened by the presence of Professor Bordet of Brussels and Professor Calmette of Lille, who opened a discussion on Thursday upon the Early Diagnosis of Tuberculosis for the Effective Treatment of that Disease.

At the adjourned general meeting on Tuesday afternoon the retiring President, Mr. Sinclair White, after a few words of appreciation, inducted Sir William Whitla into the office of President amidst great applause. The new President, after speaking of his recognition of the honour done him, referred to the great loss which had been sustained by the Association by the death of their President, Mr. Simeon Snell, during his year of office, and of the value of the services of Mr. Sinclair White, who had been elected to fill the vacancy created by Mr. Snell's death. Other speakers, including Mr. Edmund Owen, the chairman of Council, dwelt on the hard work for the Association which had been done by Mr. Snell and which, no doubt, had contributed to bring about his death. Dr. J. A. Macdonald of Taunton, who has for several years been chairman of the representative meeting, was, in a scene of much enthusiasm, appointed a Vice-President for life.

The annual exhibition was held in the Exhibition Hall, Botanic Avenue, a spacious building which houses an interesting museum of sanitary science founded by Dr. Henry O'Neill in 1899. Sanitary science in all its branches is here represented for the benefit of those who wish to acquire a practical acquaintance with the various branches of the subject. The hall proved to be very suitable for the exhibition of drugs, surgical appliances, special foods, and so forth, which are annually shown at the meeting of the Association. The accommodation was good and the exhibitors expressed their pleasure at it. Moreover, a large attendance was secured owing partly to the interesting character of the exhibits and

partly to the close proximity of the building to the sectional meetings. In this week's issue we commence a detailed account of the more interesting articles exhibited.

Their Excellencies the Earl and Countess of Aberdeen have taken the occasion to show very thoroughly their appreciation of the work of the medical profession by their presence in Belfast during the week and their attendance at many of the functions of the Congress. Besides hearing the President's address they have been present at the opening discussion of the Section of Hygiene and Public Health on the notification of tuberculosis, a disease in the prevention of which their interest is common knowledge, the address in Medicine, the address in Surgery, the address in Midwifery, the annual dinner, and the receptions given by the Lord Mayor and by the members of the Ulster Branch of the Association. On the occasion of the address in Surgery Lady Aberdeen was elected an honorary member of the Association.

On Tuesday evening the large oval Assembly Hall of the Presbyterian Church was occupied by a large audience bright with doctors' robes, assembled to hear the Presidential Address. The presence of the Viceroy and his consort, and of the Lord Mayor of Belfast, gave a full official dignity to the occasion, which was opened by an interesting little ceremony, the investment of Sir William Whitla with the badge of office by Dr. Alexander Dempsey, who hailed the incoming president in words of warm fellowship. Thereon followed the presentation of the distinguished foreign guests and colonial delegates who were received with the customary plaudits, and then Mr. Edmund Owen, chairman of council, took the chair, whilst Sir William Whitla delivered his eloquent address on the History of the Belfast School of Medicine and the need for General Reform in Medical Education. A hearty vote of thanks to the President was proposed by Lord Aberdeen, who spoke in feeling terms of the work of the medical profession and who has been an honorary member of the Association since 1897. This was seconded by Sir Clifford Allbutt, and carried with acclamation.

There was no official church service held this year to inaugurate the meeting of the Association, but on Sunday the cathedral morning service was attended by the President-elect and many members of the Association, before whom the Lord Bishop of Down (the Right Rev. Dr. Crozier) preached an appropriate sermon from the texts, "Luke, the beloved physician," and "Only Luke is with me," in the course of which he commemorated the immortal services to mankind of Simpson, Lister, Jenner, and Pasteur. In the chief Presbyterian church the Rev. Dr. David Purves preached on Religion and Medicine, and uttered a measured warning against the modern intrusion of ministers of religion into the province of the physician.

The Association entertained a distinguished group of foreign guests, who took part in many of the sectional discussions. Professor Bordet of Brussels, who first described hæmolysins and has done so much to advance our conception of immunity, Professor Calmette of the Pasteur Institute of Lille, the inventor of the ophthalmo-tuberculin reaction, and Professor Sanfelice of Naples have contributed papers to, or otherwise assisted at, the Section of Hæmatology; Professor Fehling of Strassburg and Dr. C. Jacobs of Brussels at the Section of Obstetrics and Gynæcology; Professor Sonnenburg of Berlin at the Section of Surgery; Professor E. Fuchs of Vienna at the Section of Ophthalmology; Dr. Delavan of New York at the Section of Laryngology; Professor Richard Greef of Berlin and Dr. Delsaux of Brussels at the Section of Pharmacology; and Dr. Louis Wickham.

The delegates from colonial branches who had signified their intention of being present at the meeting were: Captain E. F. Gordon-Tucker, I.M.S., Bombay; Major N. P. O'G. Lalor, M.B., I.M.S., Burmah; Dr. R. Carter, British Guiana; Dr. H. G. Thomasz, Colombo and Ceylon; Dr. A. W. Dowding and Major H. A. L. Howell, Gibraltar; Dr. J. H. Sanders, Hong-Kong and China; Dr. A. V. M. Anderson, Dr. R. J. Bull, Dr. G. C. M. Mathison, and Dr. G. A. Syme, Melbourne and Victoria; Dr. J. Hyslop and Dr. D. C. Watt, Natal; Dr. W. E. Collins, Dr. A. W. Izard, Dr. J. H. E. Jarvis, Dr. H. J. M'Lean, Dr. C. G. F. Morice, and Dr. W. H. Unwin, New Zealand; Dr. M. Jay and Dr. M. J. Symons, South Australia; Surgeon-General P. H. Benson, South India and Madras; Dr. R. Arthur and Dr. O. Maher, Sydney and New South Wales; Dr. G. Michie, Transvaal; and Dr. Ashton, West Australia.

On Wednesday Professor William Osler, in his capacity of President of the newly formed Medical Library Association, delivered before the packed benches of the chemistry theatre an address on the Medical Library as a Factor in Post-graduate Work, in the course of which he indicated the wealth of medical literature stored in the provincial centres of the United Kingdom, and laid down some admirable rules for the systematic study of books and periodicals by medical practitioners. An interesting exhibit of old medical books was shown by this association during the week. We hope that its President's stimulating address has resulted in a considerable addition to its lists of members.

The housing of all the sections in reception-rooms under the roof of the University has been a great convenience to all concerned. The library has been the scene of the addresses in medicine, surgery, and obstetrics. The local secretaries are to be congratulated on the excellence of their arrangements, and we owe a special acknowledgment to Professor Letts for placing his private room at our disposal to serve as an office during the meeting.

We have also the pleasant duty of thanking the Editor of the *British Medical Journal* and the General Secretary of the British Medical Association for the ready courtesy with which they have placed every facility at our representatives' disposal.

We have no space this week to speak of the many interesting afternoon visits and excursions that were arranged for, and it is hardly necessary to say that wherever the members and guests of the Association were invited they met with the readiest of welcomes from their Irish hosts.

THE SECTIONS.

MEDICINE.

WEDNESDAY, JULY 28TH.

President, Professor JAMES ALEXANDER LINDSAY (Belfast).

The PRESIDENT in his opening remarks gave a brief history of the growth of medical education in Belfast since the year 1820. He also indicated the necessity for the physician to reassert himself owing to the numerous invasions of his department.

Angina Pectoris.

Sir T. CLIFFORD ALLBUTT (Cambridge) in opening the discussion affirmed that angina pectoris deserved in the fullest degree to be regarded as a disease by itself and not merely as a symptom or as a symptom group. After stating that he had been accustomed for some time to divide angina pectoris into angina minor and

angina major, he proceeded to consider the symptoms separately. The chief symptom was the pain which arose at or under the manubrium sterni, and not, as is stated in the text-books, copying one another, in the præcordial region. In angina minor it was usually at the manubrium and down the middle third of the sternum. Another symptom was the association of vaso-motor phenomena and the imperious cessation of muscular movements, including even those of respiration. Another important feature was the apprehension of evil which was not necessarily the fear of impending death. The special features in angina minor were that the attack was evoked by muscular effort only, the arterial pressure was usually raised, the condition was nearly as common in women as in men, and there was not usually the fear of impending death. In angina minor the arterial pressure was not necessarily increased. The focus of the disease was so sensitive that even a little increase of pressure would serve to excite it. Angina major was a more terrible condition, but was fortunately less frequent. The pain was at or near the same area; it darted in well-known directions, especially to the arms, usually to the left, sometimes to both, rarely to the right alone. Sometimes it spread to the neck and occasionally it might start in the periphery. In this form the pain was far fiercer and plumbed the very depths of bodily anguish. This form was often fatal. Intermediate cases existed between the two types. Pseudo-angina he dismissed as pseudo-diagnosis; it was a functional malady and any reference was out of place in the present discussion. In regard to the vaso-motor phenomena, they were incidents and did not partake of the actual nature of the disease. Sir Clifford Allbutt then proceeded to discuss destructively the various views offered as to the nature of angina pectoris. The first hypothesis regarded the condition as the outcry of a dilated ventricle under stresses, and was now practically abandoned. Dilatation was too common a circumstance to be considered in so uncommon a condition as angina. The second view tried to draw an analogy with intermittent claudication in the legs. This Sir Clifford Allbutt described as a pretty fancy, but he pointed out that in angina the heart does not stumble until it falls once for all. The third view referred the condition to cramp of the heart, but in opposition to this he pointed out that the rhythm was normal. The next hypothesis discussed was that of Sir Lauder Brunton and Dr. Samuel West, which was practically an alliance between two of the preceding views and was in effect that of a crampy dilatation. As opposing this view, Sir Clifford Allbutt maintained that the heart except in fatal cases continued to do its work with surprising regularity. The next view was that of Dr. James Mackenzie, who, while allowing that the heart was intact as regards four of its fundamental qualities, thought it might be deficient in contractility, and regarded the pain as due to cramp of the muscles of the cage of the thorax. Sir Clifford Allbutt held, however, that this cessation of respiration was due to fear and was not a mechanical arrest. The next view was that of Dr. Francis Hare, who suggested the existence of a morbid tension in the mediastinum, which was to some extent an approximation to his own view. The view that the condition was due to inflammation of the cardiac plexus was negatived by the view which Sir Clifford Allbutt asserted, that this plexus was motor in function. The same objection applied to Dr. A. Morison's view which referred the condition to a lesion of the intra-cardiac ganglia. The next explanation discussed was the coronary hypothesis, so strongly advocated by Huchard and Romberg. The objection raised to this explanation was that it did not explain many, and indeed the most typical, of the cases, which did not go to autopsy but recovered completely. Again, coronary atheroma was common in old men, and it was now admitted that coronary embolism afforded no evidence to support this view. Passing from the destructive part of his remarks to the constructive, he propounded a theory, which he first published in part in 1894, but which has not received recognition except by Josué who has fully accepted it. He urged that a condition which not infrequently ended in recovery cannot have its seat in an irreparable damage. His own view was that the origin of angina pectoris was not in the heart but in the suprasigmoid portion of the aorta and its investments. In fatal cases the patient died from vagus inhibition, and death was not due to the lesion itself. This vagus effect might be perceived in attacks which did not end in death. Similar vagal inhibition causing sudden death occurred in operations about the root of the lung, in blows on the testicle, and in gall-stone. The fear of death was probably some echo in consciousness of this vagus effect. He believed the suprasigmoid part of the aorta was peculiarly susceptible to changes of blood pressure and that the Pacinian bodies found in its investments were concerned. The morbid summation of stimuli resulting from a drag or pull on the investments of this part of the aorta was transmitted to the corresponding spinal segment or segments and referred to other parts.

In the subsequent discussion Sir LAUDER BRUNTON (London), Professor W. OSLER (Oxford), Dr. W. K. HUNTER, (Glasgow), Dr. W. GORDON (Exeter), and Dr. JOHN HADDON (Hawick) took part.

A paper was read by Dr. D. W. SAMWAYS (Mentone) on Misconceptions Concerning the Riviera, and another by Dr. W. GORDON (Exeter) on the Influence of Soil on Phthisis.

SURGERY.

WEDNESDAY, JULY 28TH.

President, Professor T. SINCLAIR (Belfast).

The PRESIDENT opened the section with a few introductory remarks on the surgery met with in Belfast; there was much casualty practice, as was only natural from the large number of industrial works, and the number of fractures was very great. Aneurysms were very rare, and, as connected with this, he mentioned that syphilis was not very prevalent. Gastric and duodenal ulcers were common, and tuberculosis affecting bones and joints was very frequent indeed.

Mr. B. G. A. MOYNIHAN (Leeds) then opened a discussion on

The Operative Treatment of Obstructive Jaundice and the Proper Selection of Cases.

He commenced by insisting on the extreme difficulty of the subject. With all our present knowledge of the subject, though the diagnosis was generally correct, yet cases occurred from time to time in which the diagnosis turned out to be utterly wrong. There could be no absolute certainty. The most essential point was that sufficient inquiry should be made into the case. There were three branches of inquiry. The first branch was that dealing with the clinical history, and this was the most important of all. The inquiry should specially be directed towards the elucidation of the earliest inaugural symptoms, and by the symptoms the cases of obstructive jaundice fell into two classes. In the first the jaundice was absolutely painless in onset, and it was rarely noticed first by the patient, for it appeared very slowly and deepened day by day, yet, though it came on so slowly, it never receded. Preceding the jaundice and accompanying it there were a general impairment of health and loss of appetite, till at length the patient was emaciated and utterly disliked all forms of food. In the second class of case the onset was nearly always painful, the pain coming first and the jaundice following. The pigmentation increased rapidly, but it was never so deep as in the first form. The tint, too, was different; in the first form it tended to be a deep green, but in the second form it was hardly ever green, but always some form of yellow and brown. The pigmentation ebbed and flowed, and the patient had from time to time attacks of elevation of temperature and attacks of pain. In the former class of case the cause of the obstruction was nearly always malignant disease, perhaps of the head of the pancreas or of the common duct. In the second class the cause was nearly always a stone, but occasionally it was due to the impaction of some other body such as a hydatid. The anamnesis was the most trustworthy of all the means of diagnosis at our disposal. The second branch of inquiry dealt with the physical signs. A well-known law was of great value, and the best form in which it might be stated was that "In cases of obstructive jaundice due to blocking of the common duct contraction of the gall-bladder shows that it is due to a stone." This law holds good in nine cases out of ten; sometimes the presence of two stones may upset it, for there may be a stone in the common duct causing the jaundice, and a second stone in the cystic duct causing distension of the gall-bladder. When ascites is associated with obstructive jaundice it is nearly

always due to malignant disease. Mr. Moynihan quoted a case in which a single stone in the cystic duct pressed on both the common bile duct and the portal vein so as to cause jaundice and ascites. The third branch of inquiry is connected with the examination of the urine and fæces, and the researches of Dr. P. J. Cammidge have resulted in methods giving a very substantial help in diagnosis. All the means at the surgeon's disposal should be employed to make the diagnosis as certain as possible. To diminish the tendency to hæmorrhage calcium chloride is quite worthless, and Mr. Moynihan has given it up entirely. He has recently employed the injection of an alien serum, and he finds that it is of distinct service. He considers that it is not desirable to remove the gall-bladder in obstructive jaundice if it can possibly be retained.

Sir THOMAS MYLES (Dublin) expressed his agreement with the need of a careful and prolonged examination before operation, for the difficulties of diagnosis could hardly be exaggerated. He had a very small opinion of the law quoted, and he objected to laws being laid down in clinical matters. He had often found it very difficult even to diagnose the existence of a dilated gall-bladder, and the larger it was the more difficult its recognition. It was undesirable to remove the gall-bladder in most cases.

Mr. E. STANMORE BISHOP (Manchester) laid stress on the value of Murphy's method in the diagnosis of these cases. He had found calcium chloride useful in preventing hæmorrhage, but he gave it in large doses of 30 grains three times a day by the mouth and from 30 to 50 grains per rectum at the same time. He was much opposed to uniting the gall-bladder to the colon.

Mr. W. I. DE C. WHEELER (Dublin) urged the need of diagnosing these cases before the jaundice developed; if obscure symptoms, such as biliousness, were properly investigated the presence of gall-stones would be recognised much earlier. The Cammidge tests were difficult, and there were some simpler tests.

Mr. C. P. CHILDE (Southsea) considered that gall-stones should be diagnosed early and should be removed before symptoms develop; the mortality would be much less, for several dangerous results would be avoided.

Mr. J. CRAWFORD RENTON (Glasgow) stated that he gave calcium chloride as a routine. He looked forward to the X rays giving valuable information of the presence of gall-stones.

Mr. A. B. MITCHELL (Belfast) objected to the employment of an exploratory incision merely for diagnosis. He considered that calcium chloride should be used freely.

Dr. SONNENBURG (Berlin) mentioned a case in which jaundice appeared after an ordinary appendicectomy; later coma supervened and the patient died. At the necropsy it was found that acute yellow atrophy of the liver was present.

Mr. W. MCADAM ECCLES (London) hoped for more help from X rays, which in one case had given a faint indication of malignant disease of the head of the pancreas. In malignant disease causing obstructive jaundice the intense itching may justify draining the gall-bladder. To use calcium chloride effectually it must be given very freely by the rectum.

Mr. MOYNIHAN briefly replied.

OBSTETRICS AND GYNÆCOLOGY.

WEDNESDAY, JULY 28TH.

President, Dr. J. CAMPBELL (Belfast).

A discussion on

The Treatment of the Graver Forms of Puerperal Sepsis

was opened by Dr. THOMAS WILSON (Birmingham). The following is an abstract of his remarks, which commenced with a statement of the gravity of the disease. Puerperal fever has been made notifiable and there are the strongest possible reasons for provision by the community of effective means for its isolation, study, and treatment, as has already been done in certain other contagious diseases. The absence of such organised provision renders the investigation and study of the disease not only difficult, but incomplete and scrappy, and makes impossible a sufficiently extended practical trial of new and promising methods of treatment. Grave cases of puerperal fever that threaten the life and health of the patient usually arise in the first few days after delivery at term, or less commonly after abortion. At the onset it is impossible to tell whether we are at the beginning of a serious or even fatal illness, or are merely witnessing a mild and passing toxæmia. So soon as the temperature rises to 102° F. treatment should be begun; delay at this time is the most fatal, as it is the most usual, error. The vulva, vagina, and cervix should be carefully cleansed, a specimen of the contents of the body of the uterus should be obtained for bacteriological examination, and the uterus should be freely irrigated with iodine solution. If this is not followed by marked improvement in the course of 12 hours, or if the temperature again rises, the cavity of the uterus should be explored and any coarse putrescible material removed; for this purpose digital evacuation appears to present solid advantages over the use of the curette; in either case, a copious douche is indicated both before and after the intervention, and an anæsthetic is frequently necessary. In the general treatment of the patient absolute rest in bed is required for a sufficient time; pain may be relieved by applications of heat or cold. Among drugs, the most useful are quinine in large doses; alcohol in moderate quantities carefully regulated and controlled by observations of the pulse, temperature, tongue, and skin; and strychnine in hypodermic injections where there is failure of the circulation. The use of antipyretics is not to be recommended, since fever appears to be a measure of the patient's general resistance. Only in very high fever does the increased temperature itself appear to do harm, and when the thermometer rises above 103° tepid sponging of the surface of the body appears to be useful. With regard to treatment directed against the invading organisms, certain substances appear to have some influence in neutralising the bacterial poisons. It has been claimed by some observers that in colloidal silver or collargol we have a specific for septic infections comparable to quinine in malaria, or mercury and iodide in syphilis. Dr. Wilson had made trial of the drug in a fair number of cases, but has been unable to satisfy himself that it has any definite influence over puerperal sepsis. There have been no ill effects, however, and it appears worthy of extended trial in suitable cases. Subcutaneous injections of normal saline solution and saline enemata are found useful in supporting a failing circulation, and in helping to carry off bacterial poisons and the waste products of the conflict by flushing the tissues. Anti-streptococcic serum has been of little or no use in the treatment of grave cases of puerperal infection. The employment of vaccines made from the organism that has actually invaded the patient's body has been recently recommended, and appears to promise more favourable results. Surgical intervention in various directions and with different objects has been widely employed. Puerperal infection is of infinite variety and imperfectly understood, and cases undergo sudden and unexpected turns, so that prognosis is doubtful and the result of any therapeutic method hard to estimate. In the worst cases the resistance of the body is rapidly overwhelmed and death in a few hours or days inevitable; the expectation of good from treatment of any kind is small. In cases of peritonitis the chance of saving the patient by a timely operation increases in proportion as the symptoms progress more gradually and as larger amounts of fluid collect and become shut off from the peritoneal cavity by adhesions. Large collections of pus should be treated by early and free evacuation and drainage in the most accessible direction. Radical operations on the uterus and its appendages have proved fatal, and should only be practised in certain definite cases, as for instance in sloughing myoma, suppuration in the wall of the uterus, certain cases of rupture, and of septic hour-glass contraction, in suppurating ovarian cysts and ruptured pyosalpinx. In other cases it is desirable to wait if possible for at least six to 12 months until the invading germs have died out or become attenuated, and the natural powers of recovery and repair have had a reasonable chance to complete their work. Where it is not possible to wait it is best to operate through the posterior vaginal fornix, not removing the appendages, but opening up any purulent foci in the appendages or their neighbourhood, and providing for adequate drainage. Hope for the future still centres round prevention, which may be reasonably expected in time to bring about the practical abolition of grave cases of puerperal infection.

In the subsequent discussion,

Professor J. FEHLING (Strassburg) said that the chief thing required was a better diagnosis of the different forms of

sepsis, They could at present only recognise a case as a severe one when too late. It was impossible to say if the streptococci were hæmolytic or non-hæmolytic, and it was possible that they might change from one form to the other. They had never clearly separated sapræmia from septicæmia; in sapræmia or toxæmia operations were not required. Bacillus coli infection was sometimes a bad one. With reference to treatment, he had come to the conclusion that serum was useless and he had seen no good results from that or collargol. Vaccine therapy might be better, but their experience of it was too short. He had tried injections of 5,000,000 of streptococci in a cubic centimetre, this vaccine being prepared from the patient herself. He did not agree with Dr. Wilson about local investigations and did not examine the interior of the uterus during the first week. He had found good results from douching in infection by coli bacillus or saprophytes, but it was of no use in streptococcic infection, and curetting was dangerous in that condition. He would always open the abdomen in peritonitis and put in a tube, but he did not wash out the cavity. The most important advance in treatment would occur when they could better differentiate the different forms.

Professor MURDOCH CAMERON (Glasgow) said that he treated sapræmia in every case by swabbing out the uterus with a mixture of equal parts of camphor and carbolic acid. He did not use the curette.

Dr. J. MUNRO KERR (Glasgow) thought that the reason why results were better in hospital than in private practice was because more attention was paid to cleansing the vulva and vagina. As regards treatment of slighter forms, he thought that early exploration of the uterus was undesirable and would not do it unless there was evidence of retained débris or doubt about complete expulsion of placenta or membrane. He was opposed to curettting. In the graver forms he agreed with Professor Fehling that they could not diagnose the real gravity from bacteriological examination but could only decide on clinical grounds.

Dr. E. HASTINGS TWEEDY (Dublin) did not agree that sepsis was abolished in lying-in hospitals, and they must depend on morbidity and not entirely on mortality tables. He did not agree that the index of a severe case was a temperature of 102° F. He had known fatal cases with a lower temperature. He pleaded for a more extensive performance of the operation of opening the posterior fornix, followed by a gauze drain; it was a simple operation and could be performed with the patient in bed. Anæsthetics were always badly borne by these patients.

Dr. HENRY JELLETT (Dublin) had found that localised abscesses in Douglas's pouch were generally associated with secondary superadded infection by the bacillus coli from the rectum. He asked what were the indications for performing this operation laid down by Dr. Tweedy. Prior advised doing it in every case, but personally he would confine it to cases in which there was a swelling. He made a large opening, washed out with iodine, and plugged firmly with iodoform gauze. He used only the blunt curette.

Dr. F. EDGE (Birmingham) drew attention to the danger of introducing further germs into the uterus, in the slighter cases of sepsis, if the vagina and vulva were not disinfected. Before an intra-uterine examination was made; he used only saline for washing out. He advocated that arrangements should be made for the public supply of vaccine.

Dr. ALFRED SMITH (Dublin) thought that the diagnosis of thrombosis was extremely difficult. He placed much reliance on the leucocyte count and favoured operation if the latter was low.

Dr. CUTHBERT LOCKYER (London) said that his own treatment of the severer forms was to explore the uterine cavity with a gloved hand, and at the same time take a swab for bacteriological examination. He had given up curetting; at the same time he swabbed with iodine and put in an iodoform gauze drain. If the swab showed streptococcus pyogenes he gave a dose of 30 cubic centimetres of polyvalent serum while a vaccine was prepared; the latter took 48 hours. In coöperation with Dr. Eastes this had been done, and a dose of 2,000,000 streptococci and 200,000,000 bacillus coli given, but lately they had tried repeated smaller injections, 100,000 being given and repeated during the positive phase. At the same time he used intra-uterine douching. He would only open Douglas's pouch when there was a lump present.

Dr. C. E. PURSLOW (Birmingham) spoke of the difficulty of providing hospital accommodation for these cases, and thought that provision should be made by the municipalities for the treatment of the poorer cases in the fever hospitals.

Dr. H. BECKETT-OVERY (London) quoted the good results obtained by Dr. Knyvett Gordon in the Manchester Fever Hospital.

Dr. WILSON, in reply, said that bacteriologists were now confusing us by dividing up the varieties of streptococci, and we were not yet on sure ground as regards the division between hæmolytic and non-hæmolytic forms. As regards the division between slight and severe cases of septicæmia, he took the temperature as being the most convenient guide. He did not think it possible to tell whether the uterus was empty without exploration by the finger, and he would examine if no improvement followed in 12 hours after irrigating.

Dr. J. J. AUSTIN (Belfast) read a paper on

Midwifery in Private Practice: a Criticism of Methods based on Results.

465 consecutive cases were referred to. These included 29 abortions, nine breech presentations, one accidental hæmorrhage, one eclampsia, and five adherent placenta. There was no maternal death. There were 1·3 per cent, forceps in multiparæ, 26 per cent. in primiparæ, and 8·7 per cent. in all cases. In primiparæ he found that 67 per cent. had perineal tears; these were all sutured at once with silkworm gut.

Dr. CUTHBERT LOCKYER then read a paper on the Treatment of Uterine Cancer in the Later Months of Pregnancy.

HYGIENE AND PUBLIC HEALTH.

WEDNESDAY, JULY 28TH.

President, Dr. LOUIS C. PARKES (London).

This section opened with a large attendance, which included the Lord Lieutenant of Ireland, the Countess of Aberdeen, and the Lord Mayor of Belfast.

The PRESIDENT, in opening the proceedings, said that to those interested in the public health of the nation there was no more interesting problem of our time than the urbanisation of the population, the continued flocking into the towns of the rural population. This urbanisation led to several serious evils, the chief, perhaps, being the tendency to physical deterioration and the multiplication of unskilled and casual labour. The remedy for this unsatisfactory state of affairs was in the hands of our statesmen and politicians, and the medical officer of health was only able to alleviate the conditions which were present. He then referred to the improvements which had been effected by municipal authorities with respect to sewerage, household refuse, water-supplies, and the housing of the working classes. In respect of the air we breathed, towns were still, he said, far behind the country, and as illustrating the conditions under which a large proportion of the factory population worked he referred to the Report of the Departmental Committee of the Home Office on Ventilation, where it was suggested that the standard for CO_2 in the air should be 12 parts per 10,000, involving an air-supply of 750 cubic feet per head per hour, as against the ideal 3000 cubic feet required by de Chaumont. He then referred to the question of the pollution of the air by smoke, and stated that it was a remarkable fact that although legislative enactments had failed to deal adequately with this subject by preventing the pollution of air by factory chimneys the problem was being solved for economic reasons by the adoption of gas by the working classes owing to the penny-in-the-slot system, and by the greater recourse to central heating (hot water and steam) for all kinds of large buildings. He pointed out, however, the urgent necessity for having an adequate system of ventilation when a central method of heating was in use, because the abolition of fireplaces involved the absence of exhaust ventilation. He considered that it was also very important that the source of heat should not be at too high a temperature, otherwise the air became close and stuffy, a condition which was possibly due to minute traces of CO or other incompletely oxidised carbon compounds. In conclusion, he referred to the great work undertaken by the Countess of Aberdeen as President of the Women's National Health Association of Ireland in bringing before the workers and their families the simple

rules of health and common sense which are involved in the maintenance of the healthy home.

The Earl of ABERDEEN, in proposing a vote of thanks to the President for his excellent and appropriate address, said that the subject of it would appeal to them all, for they all knew what it was to suffer from the effects of a badly ventilated room. The suggestions made by Dr. Parkes had been practical and of importance. He expressed his thanks for the words of encouragement which had been given to the women workers in the Association in which the Countess had taken so great an interest.

Dr. C. PORTER (Finsbury), as one of the secretaries of the section, read a paper by Dr. Harold Scurfield (Sheffield) on the

Compulsory Notification of all Forms of Tuberculosis.

He said that consumption had been compulsorily notifiable in Sheffield since November, 1903. The administrative procedure which had been adopted as a result included the free bacteriological examination of sputum submitted by medical practitioners in the city; the visitation of notified cases by inspectors who, in addition to giving verbal advice, such as that relating to the opening of windows, leave printed leaflets containing advice and instructions; and the supply of pocket spittoons. When considered necessary disinfection was carried out. Provision had been made by the corporation for the hospital treatment of 20 males and 20 females, who as a rule remained in hospital only for short periods for the purpose of education in the methods best adapted to effect a cure and to prevent the disease spreading to others. A selection was made from those under treatment of those patients who would be benefited by a more prolonged residence in a sanatorium. Patients were also treated in the Sheffield Royal Infirmary. Nearly one-third of the total number of deaths recorded in Sheffield as due to consumption occurred in the workhouse hospitals belonging to the two boards of guardians within whose areas of administration the city of Sheffield was included. In each of these hospitals and in the infirmary modern methods of treatment were adopted. Lastly, there had lately been provided by the education committee an open-air school for delicate children. In his references to the statistical records of tuberculosis, Dr. Scurfield pointed out the necessity for giving separately the death-rates of men, women, and children. The importance of this analysis was emphasised by the fact that in Sheffield, while there was nothing remarkable about the total death-rate of both sexes at all ages, the rate for women alone was very low, and that for men and for children very high.

The Earl of ABERDEEN inquired whether there was any local opposition to the Act before it actually became law and while it was under consideration.

Dr. PORTER stated that as far as he was aware there was no opposition at all, and

The Earl of ABERDEEN congratulated the people of Sheffield upon their enlightenment.

Dr. J. C. MCWALTER (Dublin) said that the results of Dr. Scurfield's paper showed that whereas formerly 11 persons out of every 1000 died from consumption in the workhouse, now 38 persons out of the same number died there, apparently as a result of compulsory notification of phthisis. This was not desirable. It might possibly be necessary to notify in a city like Sheffield, where such a large proportion of the population worked at grinding and cutting of tools and where hundreds of men worked within a few inches of each other, but in cities like Dublin or Belfast, or in rural districts, to register a man as a consumptive branded him as a leper and hurried him into the grave. There were superstitions in science as well as in religion, and the amount of terror of the tubercle bacillus was a twentieth century superstition. First, we were assured that the bacillus would kill us, but when it failed to kill the patient we were told that he had become immune or that the soil was unfavourable. Referring to the passing of the Tuberculosis Prevention (Ireland) Act (1908), he reminded the meeting that an Order in Council had been made under which a medical practitioner was bound to notify to the medical officer of health a case of tuberculosis where the patient habitually slept in the same room with another person not so affected, and he pointed out how difficult it would be to carry out this provision consistently. He strongly disapproved of the notification clauses of the Act. In the very interesting volume published by the Women's National Health Association it was stated, on the authority of the President of the College of Physicians of Ireland, that at least 50 per cent. of old men showed signs of tuberculosis. If those cases had been notified, and these men had thus become aware of the disease from which they were suffering, it is probable that they would never have become old men—the fear of the disease and the taint of the leper would have hurried them into the grave. He concluded by arguing that if hospital segregation were complementary to notification the cost would amount to at least £2,000,000 yearly.

Sir CHARLES CAMERON (Dublin) could not agree with Dr. McWalter. Ireland in some respects was far in advance of other countries, notably in the carrying out of the Vaccination Acts. He knew of no instance in Ireland of lack of belief in the efficacy of vaccination, and the Irish people had the greatest respect for all laws which they knew were useful. Ireland was the first country to have a general Act relating to tuberculosis. A terrible disease was in their midst and something had to be done to remedy it, even though that remedy itself were terrible. The inconveniences connected with the carrying out of the Act were trifling when the great object of preventing the disease was considered. The deaths from tuberculosis in Dublin were three times as many as those caused by the principal infectious diseases. The death-rate from zymotic diseases in Dublin 20 years ago was 6 to 7 per 1000 of the population, but the great sanitary improvements which had been effected had reduced that rate to 1·5 per 1000. Those improvements unfortunately had been altogether inoperative in reducing the death-rate from tuberculosis, so that something more must be done. He regretted that the Act was an optional one and was of opinion that if notification were necessary at all it should be compulsory.

Sir JOHN BYERS (Belfast) said that the question of notification must be looked at fairly and straightly if they wanted to bring Ireland into line with England, Wales, and Scotland. They had conditions in Ireland which hardly existed anywhere else, and in order to remedy those conditions they must know first of all where the cases of the disease were, and that could only be secured by means of compulsory notification. Voluntary notification was quite inadequate. During six months of 1907 there were notified voluntarily in Belfast 1231 cases of consumption, but during the same period there were 926 deaths, and, assuming that there were about ten times as many cases as deaths, the number of cases which did not come to the knowledge of the health authorities must have been very large. Referring to the statement that Irishmen would not agree to carry out the provisions of the Tuberculosis Act, he reminded the meeting of the very drastic provisions relating to notification which were in force in New York where the population contained a very large number of Irishmen. He hoped that one result of that discussion would be that the Belfast corporation would adopt the Act.

Dr. T. G. NASMYTH (Edinburgh) said that there was a great deal of misapprehension as to the result of enforcing compulsory notification. There was a consensus of medical opinion, as expressed at conferences all over the world, that notification of consumption was a necessary measure. He warned them, however, that other measures were necessary in connexion with notification and as complementary to it.

Dr. A. W. GILCHRIST (Nice) said that the difficulties connected with compulsory notification were hardly realised. He considered that only the "open" cases of tuberculosis should be notified.

Mr. HERBERT JONES (Hereford) pointed out that under the Irish Act only those cases were required to be notified which were of an infectious character, therefore only "open" cases were notifiable. He urged the importance of some steps being taken by voluntary associations to look after the families of men who were suffering from consumption and were thus unable to do so themselves.

Dr. J. L. RENTOUL (Lisburn), speaking as a general practitioner, was altogether in favour of compulsory notification. The medical world had done what it could for the consumptive, but now the State must step in and take its share. But the first thing the State must do was to find out who the persons were who required assistance, and this could only be done by means of compulsory notification.

Dr. J. DARLEY WYNNE (Clonmel) referred with some surprise to the fact that hitherto the cattle fairs in Ireland had received no consideration as a possible cause of the spread of tuberculosis in the country. He stated that in many important towns in Ireland the cattle fairs are held in the main streets and not on a market ground. Experiments which had been made by Dr. Shroeder of Washington had shown that about 40 per cent. of cattle apparently healthy, and only known to be tuberculous because they reacted to tuberculin, passed tubercle bacilli in their fæces. The contamination of milk and of other articles of food was thus made possible. He considered that the wide distribution of bovine tuberculosis which must occur when hundreds of cattle were congregated in public streets for hours must be a source of real danger to the community.

Mr. HERBERT JONES read a contribution by Dr. James Niven (Manchester), in which he outlined a scheme for the eradication of tuberculosis among cattle. He suggested that veterinary surgeons of known experience and special skill should be appointed at good salaries by a number of county authorities, their salaries being paid by Government, and they should be supplied with tuberculin made in Government laboratories, the use of tuberculin otherwise than by these officers being under regulation. They would be placed in a definite relationship to the medical officer of health. Their first duty would be to select the farms most suitable for the commencement of eradication, regard being had to the character of the farmer in the first instance and then to the sanitary condition of the homestead. In carrying out the first operation of eradication the cows would be purchased subject to freedom from reaction and under such other conditions as might be deemed necessary. Re-acting stock would become the property of the Government and arrangements would therefore have to be made for dealing with them. Necessary measures of disinfection would be carried out by the farmer, the materials being supplied at the public expense. The entire expense of these operations would be borne by the Imperial Exchequer. The stock having been freed from tuberculosis, any subsequent losses from the disease, which ought not to be great, would be borne by the farmer, but a biennial test would continue to be carried out by the veterinary surgeon with tuberculin provided by the Government. All cattle thus tested would be earmarked, reacting being distinguished from non-reacting cattle. The establishment of centres free from tuberculosis would have to be restricted during the first two or three years to a limited number of farms, but when a sufficiency of stock-producing centres had thus been created a larger number of farms could then be dealt with in the course of the year, the stock on those already dealt with being available for replacement of reacting animals.

NAVY, ARMY, AND AMBULANCE.

WEDNESDAY, JULY 28TH.

President, Fleet-Surgeon J. LLOYD THOMAS, R.N.

After an address from the PRESIDENT, a paper communicated by Colonel H. E. R. JAMES, R.A.M.C., on the Medical Branch of the Officers Training Corps, was read, followed by a paper by Lieutenant-Colonel R. PORTER on the Physical Training of Recruits in the Army.

In the discussion that followed the following gentlemen took part: Colonel T. H. HENDLEY, I.M.S., Staff-Surgeon E. COX, R.N., and the PRESIDENT.

Colonel HENDLEY then read a paper entitled, "A Contrast Between the Treatment of the Wounded under the Moghul Emperors and King Edward VII., Emperor of India," which was discussed by the PRESIDENT, Lieutenant-Colonel PORTER, and Lieutenant-Colonel E. M. WILSON. After Colonel HENDLEY had replied the section adjourned.

PHARMACOLOGY AND THERAPEUTICS.

WEDNESDAY, JULY 28TH.

President, Professor R. STOCKMAN (Glasgow).

Mr. GEORGE CHIENE (Edinburgh) read a paper on

Spinal Anæsthesia,

which was discussed by Dr. DUDLEY BUXTON (London), Dr. ALEX. DON (Dundee), Professor A. E. BARKER (London), Dr. J. MILL RENTON (Glasgow), Dr. G. A. H. BARTON, Mr. LEEDHAM GREEN (Birmingham), Dr. V. G. L. TIELDEN (Belfast), Dr. W. E. DIXON (Cambridge), and Dr. COFFEY (Egypt).

Professor A. E. BARKER (London) then read

A Short Note upon the Elimination of Stovaine after Spinal Analgesia,

which was discussed by Dr. NEWMAN NEILD (Bristol), Dr. W. E. DIXON (Cambridge), and Dr. H. H. DALE (London).

ANATOMY AND PHYSIOLOGY.

WEDNESDAY, JULY 28TH.

President, Professor C. S. SHERRINGTON (Liverpool).

The PRESIDENT, in his opening remarks, expressed regret at the absence of Professor Symington, and remarked upon the advantages of holding a joint meeting of anatomists and physiologists.

The following papers were read:—

1. On the Anatomy of the Achondroplastic Skeleton, by Professor A. F. DIXON (Dublin). This was discussed by Professor C. J. PATTEN (Sheffield), Dr. D. WATERSTON (Edinburgh), Dr. R. H. SCANES-SPICER (London), Dr. N. C. RUTHERFORD (Edinburgh), Professor PETER THOMPSON (London), and the PRESIDENT.

2. On Some Points in the Mechanics of Respiration, by Dr. R. H. SCANES-SPICER (London), which was discussed by Professor SHERRINGTON, Professor PETER THOMPSON, Dr. J. S. DICKEY (Belfast), Dr. N. C. RUTHERFORD, and Dr. WATERSON.

3. On Phosphatides, by Dr. HUGH MACLEAN (Liverpool). This was discussed by Dr. N. C. RUTHERFORD, Dr. REID HUNT (Washington, U.S.A.), Professor B. MOORE (Liverpool), and Professor T. H. MILROY (Belfast).

DERMATOLOGY AND ELECTRO-THERAPEUTICS.

WEDNESDAY, JULY 28TH.

President, Dr. W. CALWELL (Belfast).

After an introductory address by the PRESIDENT, Dr. LOUIS WICKHAM, director of the Radium Institute of Paris, gave an interesting lantern demonstration on the Treatment of Skin Diseases by Radium, which was discussed by Sir MALCOLM MORRIS, K.C.V.O. (London), Professor R. B. WILD (Manchester), Dr. GOODWIN TOMKINSON (Glasgow), Dr. J. H. SEQUEIRA (London), Dr. S. G. DORE (London), Dr. W. B. C. TREASURE (Cardiff), Dr. JAMES METCALFE (Bradford), Dr. A. TRIMBLE (Belfast), and Dr. J. A. CODD (Wolverhampton).

After Dr. WICKHAM had replied, Dr. SEQUEIRA communicated a paper by Dr. H. Lewis Jones (London) on the Treatment of Nævus by Radium.

DISEASES OF CHILDREN.

WEDNESDAY, JULY 28TH.

President, Mr. H. J. STYLES (Edinburgh).

The morning was occupied in a discussion on Club-foot, introduced by Mr. ROBERT JONES (Liverpool), and contributed to by Mr. A. H. TUBBY (London), Mr. J. H. NICOLL (Glasgow), Mr. ALEXANDER MACLENNAN (Glasgow), Mr. E. LAMING EVANS (London), Mr. EDMUND OWEN (London), Mr. R. C. DUN (Liverpool), Mr. F. W. COLLINSON (Preston), and the PRESIDENT.

LARYNGOLOGY, OTOLOGY, AND RHINOLOGY.

WEDNESDAY, JULY 28TH.

President, Dr. STCLAIR THOMSON (London).

After some introductory remarks from the PRESIDENT, Dr. J. BARR (Glasgow) read a paper on

The Treatment of Tinnitus Aurium,

confining himself to various non-operative methods of treatment. This was discussed by Mr. R. LAKE (London), Dr. J. A. KNOWLES RENSHAW (Manchester), Dr. A. WYLIE (London), Mr. OLIVER CARLYLE (Edinburgh), Dr. W. HILL (London), Mr. W. COUSINS (Southsea), Mr. R. WOODS

(Dublin), Mr. LOGAN TURNER (Edinburgh), and Dr. BRYSON DELAVAN (New York).

Dr. HUGH JONES (Liverpool) read a paper on

The Association of Slight Abnormalities of the Auricle, with certain Forms of Deafness,

which was discussed by Dr. G. JACKSON (Plymouth) and Mr. LAKE.

Dr. DAN MCKENZIE (London) read a paper on the Clinical Value of Labyrinthine Nystagmus Tests; and Mr. G. JACKSON on the Etiology of Auditory Meatus Exostosis.

THE ANNUAL EXHIBITION.

THE exhibition of drugs, surgical appliances, special foods, and other matters of medical import seemed to create a greater impression on the visitors this year than has usually been the case. A quite remarkable interest was taken in this important department of the meeting. As early as Tuesday morning (the opening day) the Exhibition Hall in the Botanic Avenue, which is immediately behind Queen's University, was an animated scene of discussion between medical men and the exhibitors, while there was a consensus of opinion that the exhibits had never made a more attractive display. The hall offered the exhibitors a better chance than usual of an advantageous display, for it is a fine and spacious building, very preferable to the drill hall in which so often this big scientific bazaar has been held. The hall was built for the purpose of exhibiting objects demonstrating the application of sanitary science, and the city owes it to the generosity of Dr. Henry O'Neill.

We propose to deal with the various exhibits in the following order: (1) Drugs; (2) Surgical Instruments and Appliances; (3) Foods and Food Products; (4) Sanitary Appliances; (5) Mineral Waters, Beverages, &c.; (6) Publications; and (7) Exhibits of a Miscellaneous Character.

I. DRUGS.

Although it is true in regard to this section that there were many familiar products shown, products which recalled something of the kind shown at previous exhibitions, yet on the whole it may be said there were in many instances interesting new departures. It was not surprising to find, in view of certain therapeutic advances, that prominence was given to sera of high potency, to vaccines, and to the new organic arsenic and mercury combinations. Methods of administration by injection and inunction, by the mouth, and so forth, found excellent illustration in a series of most elegant pharmaceutical products. It is a difficult task to point out one set of preparations as being superior to another, where all were aimed at therapeutic efficiency and ease and convenience of administration.

The cases of exhibits shown by Messrs. Burroughs, Wellcome, and Co., of Snow-hill Buildings, London, E.C., were of the highest interest. In addition to their series of fine chemicals, alkaloids, &c., all of ascertained purity and activity, this firm showed their series of organic arsenic preparations, soamin and orsudan; ernutin, containing the active therapeutic principles of ergot physiologically standardised; tyramine, the chief active (basic) constituent of aqueous extracts of ergot and hemisine, a preparation of the active principle of the medulla of the suprarenal gland. They also showed several vaccines, of which the acne bacillus, gonococcus, staphylococcus, and typhoid vaccines are types, and tuberculin for treatment, for diagnosis, and for laboratory tests. Amongst the sera submitted to rigorous tests for sterility and non-toxicity were diphtheria antitoxic serum, anti-colon bacillus serum, anti-dysentery serum, anti-venom, and so forth.

Amongst the preparations worth attention and shown at the admirably designed stall of the Hofmann La Roche Chemical Works, Limited, of 7-8, Idol-lane, London, E.C., was that known as digalen, described as an amorphous digitoxin, soluble in water, isolated from the leaves of digitalis purpurea. It is claimed for digalen that it admits of exact dosage, gives a prompt physiological response, has no cumulative effects within the limits of prescribed dosage, and does not cause any gastric trouble. Another preparation of interest at this stall was thiocol, a potassium salt of guaiacol sulphonate, a soluble, tasteless, and odourless substance which has been used in tuberculosis with favourable results, diminishing the number of tubercle bacilli in the sputum, preventing the frequent recurrence of night sweats, and without irritating effects on the gastric membrane. The exhibit included some fine specimens of crystallisation—e.g., caffeine and strychnine, and a preparation known as benzosalin, a benzoyl compound of salicylic acid, which is said to be useful in salicylic acid medication and without the unpleasant side-effects of the ordinary acid and the salicylates. Lastly was shown Secucarnin, a sterile solution of those principles of ergot which are hæmostatic, the nauseating or irritant constituents being entirely eliminated.

There was much to interest the physician at the tastefully arranged stall of Messrs. Parke, Davis, and Co., of 50, Beak-street, Regent-street, London, W. Of perhaps the greatest importance were their preparations containing adrenalin, the constringent and blood-pressure raising principle of the suprarenal gland isolated by Dr. Takamine in 1900, and introduced by this firm to the medical profession. In addition there were a series of bacterial vaccines prepared in the laboratory of St. Mary's Hospital, under the supervision of the director, Sir A. E. Wright; and a number of standardised fluid extracts and mercurettes for mercurial inunction. At this stall from time to time lantern demonstrations were given illustrating the preparation of serums and toxins, the physiological standardisation of drugs, and the manufacture of pharmaceutical products. The Bayer Company, Limited, of 19, St. Dunstan's-hill, London, E.C., showed a very interesting series of fine pharmaceutical products, amongst the latest of which were thyresol, a methyl-ester of santalol, a therapeutic advance on sandal-wood oil in the treatment of gonococcus infection; autan, a self-developing formaldehyde disinfectant; and spirosal, a salicylic oil for external application in rheumatism, to supersede mesotan. The exhibit included, amongst other things, soluble sodium veronal and guaiacose, a 5 per cent. solution of guaiacol-calcium sulphurate in liquid somatose, which has been employed with distinct success in disorders of the respiratory tract.

On Messrs. Oppenheimer and Son's stall, of 129, Queen Victoria-street, London, E.C., were to be seen a number of recent pharmaceutical products. Amongst these were calomel and mercurial "creams" for intra-muscular injection in syphilis, which are said to be painless in action and to cause no local disturbance. There were also shown some sera pulverettes, a pill with a fragile coating which secures the rapid administration of a drug in powdered form; and specimens of "lactigen," a culture of Metchnikoff's bacillus for the preparation of curdled milk. Messrs. Zimmer and Co., Limited, of Frankfort-on-the-Maine, who were represented by Widenmann, Broicher, and Co., of 33, Lime-street, London, E.C., exhibited some interesting compounds, prominent amongst which were euquinine, the now well-known tasteless substitute for quinine which is said to have the same physiological action of that alkaloid but without its objectionable by- or after-effects. The exhibit included allosan, a santalol derivative having advantages in the treatment of gonorrhœa; bromvalidol, a sedative and nerve stimulant; and estoral, a boric acid menthol ester for catarrh of the respiratory organs.

One preparation only, but a good one, was shown on the stall of the Hanley Chemical Manufacturing Company of Hanley, Staffordshire—viz., a liquid hæmoglobin compositus. While containing all the constituents of ox blood it is not at all unpleasant to take. The Angier Chemical Company, Limited, of 32, Snow-hill, London, E.C., exhibited samples of their emulsion of petroleum with hypophosphites. The emulsion is complete, as the microscope shows, and attention is drawn to the remarkable purity of the petroleum employed. "Miol" is the name given to a formula of admitted value in wasting diseases. It is a combination prepared by the Miol Company of 82, Southwark Bridge-road, London, S.E., of olive oil, with an active malt diastase, and contains in addition iodine and glycerophosphates. Some novelties were shown by the Huxley's Pharmaceutical Products and Pasteur Vaccine Company of Chichester Rents, Chancery-lane, London. Amongst them were an excellent non-saccharine glycerole of glycerophosphates, and similar preparations but containing formates, hæmoglobin, pepsin, and red bone marrow extract respectively. There were also shown fermentactyl tablets for obtaining sour milk cultures, anti-diphtheric dragées, anti-tetanic serum, and aseptic calf lymph.

The milk of magnesia of the Charles H. Phillips Chemical Company of 14, Henrietta-street, Covent Garden, London, W.C., is, as our own analysis has shown, a pure hydrated oxide of magnesium which serves very favourably as an antacid. The same company exhibited a phospho-muriate of quinine compound, described as a combination of the wheat phosphates with muriate of quinine and strychnia. This is of value as a tonic for the nervous system and digestive organs. Messrs. Woolley, Sons, and Co., Limited, of Manchester, showed a very interesting series of galenical and pharmaceutical products, typifying care and skill in their manufacture. As examples, mention may be made of akolethe, a solution of the sedative principles of opium free from nauseous taste and having no unpleasant after effects; physiologically standardised preparations of ergot, Indian hemp, digitalis, squills and strophanthus, unguentum resorcin co., malto-hæmoglobin, and a series of elixirs of value in disorders of the respiratory tract. They exhibited also an assortment of medical appliances, including trusses, enemas, midwifery outfits, aseptic syringes, and so forth. The chief subject of Messrs. H. and T. Kirby and Co.'s exhibit was purgen, described as the "ideal purgative" which is known to be identical with phenolphthalein, the useful alkali and acid indicator used by chemists in analysis. There can be little doubt of the usefulness of purgen owing to its non-irritating action.

Devoted as well to the exhibition of certain valuable food products, which we hope to describe in a future number, Messrs. Savory and Moore of 143, New Bond-street, London, W., included on their stall pancreatin pills; gelatine lamels for internal administration; aperione, an aperient and purgative particularly suited for delicate and old patients; and a new chemical food, an excellent preparation of red bone marrow, with iron and calcium glycerophosphates. Messrs. Reynolds and Branson of 13, Briggate, Leeds, succeeded in making their exhibit artistic and attractive by a selection of elegant pharmaceutical preparations, including their concentrated mixtures, bismuth preparations, concentrated tinctures, and opianthe, a preparation of opium containing 0·75 per cent. morphine, and free from nauseous odour and resin.

Liquors, bismuth preparations, heroin compounds, medicinal syrups, and medicated pastilles were praiseworthy features of the exhibit of Messrs. Wyleys, Limited, of Coventry. In addition were some hermetically sealed sterilised glass capsules known as "Wylettes" of actinic proof glass containing 1 cubic centimetre of a sterilised liquid ready for immediate hypodermic injection. The stall of the Maltine Manufacturing Company, Limited, in conjunction with Messrs. Carnrick and Co., Limited, of 24 and 25, Hart-street, Bloomsbury, London, W.C., contained a number of useful preparations in which maltine serves as an effective vehicle. Such are, for example, maltine with hypophosphites, with iron, with pepsin and pancreatin, with creasote, with cascara sagrada, and so on.

Besides a number of excellent apparatus for producing spray (vaporisers, atomisers, insufflators, &c.) in connexion with which his name is so well known, Mr. Frank A. Rogers of 327, Oxford-street, London, W., exhibited some useful medicaments containing heroin; while mention should be made of muscatol, a pleasantly perfumed liquid, proved, it is stated, to be an absolute protection from mosquitoes, gnats, midges, and other insect pests. A veterinary muscatol is also prepared in a concentrated state for the protection of horses, cattle, and dogs from the attacks of similar pests. Messrs. B. Kuhn and Co. of 16, Rood-lane, London, E.C., exhibited samples of the interesting vegetable digestive ferment papain, the exhibit including their pure specimens of ethyl chloride and the antiseptic chinosol. The Saccharin Corporation, Limited, of 165, Queen Victoria-street, London, E.C., showed specimens of novocain, the now well-known local anæsthetic, which is considerably less irritant than other sustitutes for cocaine, while producing an equal degree of anæsthesia. The claims of novocain were set forth fully in a pamphlet on the subject embodying the scientific contributions which have been made from time to time establishing claims in its favour.

II.—SURGICAL INSTRUMENTS AND APPLIANCES.

Compared with previous years this section was not so fully represented. The exhibits relating directly to surgical appliances were quite few in number, although it must be pointed out that considerable interest was shown in the appliances that were presented to view. Perhaps the greatest variety of surgical instruments and accessories was to be found on the two exhibits of Messrs. Down Brothers of 21 and 23, St. Thomas-street, London, S.E., who reserved one stall for the demonstration of aseptic hospital furniture and another for instruments. The exhibit comprised a series of new and original designs which compelled inspection by those desirous of keeping pace with modern appliances.

The stall of Messrs. Siemems Brothers and Co., Limited, of Caxton House, Westminster, London, S.W., displayed X ray outfits and accessories of the latest design, offering the most recent facilities in regard to the application of the X rays to diagnosis. In particular, mention should be made of the "G.P." X ray outfit, which, as its title implies, is designed for the use of the general practitioner. It consists of a 16-inch spark induction coil with 3-part primary winding and spark gauge; a small switch table with ammeter, rheostat with 15 contacts, two three-way switches for the Wehnelt interrupter (which is double and provided with a lead cover and silencer), and a protective screen lined with lead and provided with a lead-glass window, all on castors. When the outfit is used for instantaneous radiography the shunt resistance is cut out and very short exposures can then be obtained by means of the main switch. The exhibit included a larger apparatus with rotating high-tension rectifier for connecting to 220 volt continuous current mains and a universal and safety protective tube-stand. Attention should also be drawn to a series of radium and radio-active substances and radio-active earth for local application and for baths. Messrs. C. A. Hoefftcke, Limited, of 21, Woodstock-street, London, W., exhibited their well-known appliances for joint diseases, for fractures, a corset for lateral curvature, and Openshaw's appliance for obtaining extension of the spine in the treatment of scoliosis and caries or injuries to the spine. The exhibits included the auto-gloving machine, the distinct merits of which have already been discussed in our columns.

Messrs. Meyer and Meltzer of 71, Great Portland-street, London, W., presented examples of recent surgical instruments which are described in their new catalogue on "General Surgery." A feature was made of their "University" examination lamps for the general surgeon, the ophthalmologist, the laryngologist, the aurist, the gynæcologist, and so on. Close by Messrs. Fannin and Co., Limited, of Dublin, had a quite interesting assortment of up-to-date surgical instruments, including anæsthetic appliances, midwifery outfits, electro-medical appliances, urine-test cases, orthopædic appliances, and so forth. The Lee antiseptic air producer (S. Lee, 51, Conduit-street, London, W.) attracted considerable attention. This apparatus produces a warm powerful current of antiseptic air in a continuous volume at a velocity of 250 feet per minute, which may be used for inhalation. The apparatus has many advantages in the treatment of the lungs and throat with antiseptics, and its action is similar to that of the Bunsen burner. The Liverpool Lint Company, of Mark-street Mills, Netherfield-road North, Liverpool, showed an interesting assortment of surgical dressings, absorbent gauze tissue, surgeons' tow, carbolised tow, and "vulnoplast," a new surgical antiseptic dressing with a self-adhesive edge, requiring no other attachment to dress a wound. A local firm, Messrs. John Clarke and Co., Limited, of 8, Donegal-square West, Belfast, had a very neatly arranged stall, containing surgical instruments, bandages (Irish linen mesh), artificial limbs, catheters, ligatures, &c. At the stall of Messrs. Hertz and Co. of 9, Mincing-lane, London, E.C., a very effective and simple apparatus for producing chloride of ammonium smoke was shown.

The excellent exhibit of Messrs. John Weiss and Son, Limited (287, Oxford-street, London, W.), of surgical instruments attracted the notice due to a careful assortment of appliances of the most recent model. The exhibit included a selection of ophthalmic instruments, Landolt's armamentarium, retinoscopes, and so on. A very complete exhibit of surgical instruments was also shown by the Holborn Surgical Instrument Company, Limited, of Holborn-circus, London, E.C., a feature of it being the Holborn £25 prize set of instruments for surgeons commencing to practise. Practically the only illustration on any scale of treatment by radiant heat and light was given by the Dowsing Radiant Heat Company, Limited, of 24, Budge-row, Cannon-street,

London, E.C, while Messrs. Hearson, Limited, of 235, Regent-street, London, W., shared the distinction of alone exhibiting biological incubators. Here, also, were autoclaves, centrifuges for hand or mechanical power, Hearson's patent opsonic incubator for the determination of opsonic index, and a biological incubator for researches in embryology and histology.

Messrs. Gale and Sons, Ltd., of Dominion Works, Birmingham, and Whitfield Bedsteads, Limited, of Watery-lane, Birmingham, exhibited a series of beds for hospital and asylum use known as the "Lawson Tait" spring bedsteads, the exhibit including also some excellent examples of aseptic hospital furniture. Mr. G. H. Zeal, of 82, Turnmill-street, London, E.C., presented for inspection a considerable number of his "Repello" clinical thermometers, which obviate the shaking down of the mercury column in order to reset it by means of a depressible bulb. He exhibited also an aseptic germ-proof clinical thermometer. There were, lastly, several appliances of medical and surgical interest shown at the stall of Messrs. Reynolds and Branson, Limited, of 13, Briggate, Leeds, including some special retractor and dissector forceps, towel clips, apparatus for testing urine, ophthalmic lamp, first-aid case, and many other apparatus calculated to assist materially the general practitioner.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS OF LONDON AND SURGEONS OF ENGLAND.—At the First Professional Examination held on July 19th, 20th, 22nd, and 23rd the following gentlemen were approved in the subjects indicated:—

Chemistry and Physics.—Alan Douglas Anderson, University College; Wilfrid Andrew, King's College; George Arthur Batchelor, St. Mary's Hospital; Mahmud Bayumi, London Hospital; Samuel Caplan, St. Mary's Hospital; Francis Howard Cleveland, St. Bartholomew's Hospital; George Malcolm Coope, Manchester University; David Lloyd Davies, University College, Cardiff; Ralph Marsh de Mowbray, St. Thomas's Hospital; Edmund Rupert Dermer, Middlesex Hospital; Carl Keating Graeme Dick, and Sidney Ernest Elphick, St. Mary's Hospital; Valentine Fox, London Hospital; John Wesley Gilbert, University College, Bristol; Evan Williams Griffith, University College, Cardiff; Howell Gwynne-Jones, London Hospital; James George Hanafin, Charing Cross Hospital; Charles Lyon Herklots, B.A. Oxon., University College; Rupert Bannatyne Hick, St. Mary's Hospital; Frank Edwin Johnson, Plymouth Technical School; Richard Bertram Johnson, University College, Bristol; Frank Winter Lawson, Brighton Municipal College of Science; William Douglas McDonald, Birkbeck College; Robert Charles Matson, Guy's Hospital; Claude Jocelyn Delabere May, University College, Bristol; John Meredydd Parry, University College, Cardiff; Stanley Victor Percy Pill, St. Mary's Hospital; William Reginald Pryn, Guy's Hospital; John Thomas Samuel, St. Mary's Hospital; John Patrick Shaw, Middlesex Hospital; Vincent Russell Smith, St. Mary's Hospital; Frederick Lionel Spalding, Guy's Hospital; John Masfen Stack, Birmingham University; William Allan Stewart, London Hospital; Gavin Stiell, St. Thomas's Hospital; Thomas Harold Thomas, London Hospital; Cedric Norman Vaisey, University College, Bristol; Philip Pennefather Warren, London Hospital; Thomas Mansergh Wood-Robinson, Portsmouth Municipal College; and Pelham Vansittart Wynn-Werninck, University College, Bristol.

Physics.—George Aspinall-Stivala, St. Bartholomew's Hospital; Hugh Woodward Barnes, King's College; Cyril Armond Bernard, Liverpool University; Arthur Charles Oakley Brown, Birmingham University; Thomas Hungerford Cresswell, Middlesex Hospital; Cuthbert Lindsay Emmerson, University College, Bristol; Arthur George Bisset Fenwick, St. Thomas's Hospital; William Reginald Huleatt Heddy, Middlesex Hospital; Alfred Morgan Hughes, Birkbeck College; Joseph Kinnear, Manchester University; Joseph George L'Etang, St. Bartholomew's Hospital; Alwyne Harold Manfield, London Hospital; Arthur Abercrombie Prichard, University College, Cardiff; Gerald Robinson, Manchester University; Kenneth Vickerman Smith, Charing Cross Hospital; Walter Bernard Risk Stower, St. Bartholomew's Hospital; Frank Sykes, Leeds University; Arthur Geoffrey Turner, St. Bartholomew's Hospital; Oscar Ramsay Unger, University College; Algernon Randolph Upton, St. Bartholomew's Hospital; George William Watson, Leeds University; and Kim Glen Wee, St. Thomas's Hospital.

Chemistry.—Albert John Drew, Guy's Hospital; Edward Hugh Morris, Charing Cross Hospital; John Casper Münch, London Hospital; William John O'Kane, Middlesex Hospital; Kingsley Chisman Pitman, Hartley College, Southampton; Arthur Starkie Plant, Manchester University; Clive Watney Roe, Charing Cross Hospital; Charles Pearse Crodacott Sargent, St. Bartholomew's Hospital; Evelyn Alexander Sutton, Charing Cross Hospital; Henry John Hugh Symons, King's College; and George Harvey Duder Webb, University College.

Biology.—Alexander William Charles Bennett, St. Thomas's Hospital; William McHutchison Binning, University College; Samuel Caplan, St. Mary's Hospital; Paulin Roger Chevreau, Guy's Hospital; William Lonsdale Cockcroft, Manchester University; David Lloyd Davies, University College, Cardiff; John Edgar Davies, Guy's Hospital; Ralph Marsh de Mowbray, St. Thomas's Hospital; Charles Theodore James Drobig, St. Mary's Hospital; Aylmer Green, City of London College; James George Hanafin, Charing Cross Hospital; Charles Lyon Herklots, B.A. Oxon., University College; Alfred Morgan Hughes, Birkbeck College; Frank Edwin Johnson, Plymouth Technical School; Harold Dunmore Lane, London Hospital; Frank Winter Lawson, Brighton Municipal College of Science; Alwyne Harold Manfield, London Hospital; Robert Charles Matson, Alan Vivian Moberley, and Arthur Stanley Morgan, Guy's Hospital; Edward Hugh Morris, Charing Cross Hospital; Arthur Rennie Muir, University College, Cardiff; Kenneth Montague Nelson, St. Mary's Hospital; William John O'Kane, Middlesex Hospital; William Linnell Partridge, Guy's Hospital; Hugh Ley Puxon Peregrine, King's College; William Reginald Pryn and Pierre Joseph François Louis Rathier du Vergé, Guy's Hospital; Cecil Arthur Robinson, St. Mary's Hospital; Archibald Frank Salsbury, Guy's Hospital; John Thomas Samuel and Vincent Russell Smith, St. Mary's Hospital; Frederick Lionel Spalding, Guy's Hospital; John Masfen Stack, Birmingham University; George Sydney Stathers, Cambridge University and St. Mary's Hospital; Gavin Stiell, St. Thomas's Hospital; Ramon Romero SyQuia, London Hospital; Cedric Norman Vaisey, University College, Bristol; and Vernon Charles Whitby Vickers, St. Mary's Hospital.

SOCIETY OF APOTHECARIES OF LONDON.—At examinations held recently the following candidates passed in the subjects indicated:—

Surgery.—H. A. Hancock (Section II.), Cambridge and London Hospital; W. J. Morton, Edinburgh and Aberdeen; and H. M. Pollard (Sections I. and II.), Royal Free Hospital.

Medicine.—J. M. Burke (Section I.), Middlesex Hospital; A. H. C. Dawes (Section II.), Westminster Hospital; J. A. Jones (Section I.), Manchester; W. J. Morton, Edinburgh and Aberdeen; H. M. Pollard (Sections I. and II.), Royal Free Hospital; and J. W. Williams (Section I.), Guy's Hospital.

Forensic Medicine.—H. V. Humphry, Westminster Hospital; W. J. Morton, Edinburgh and Aberdeen; and H. M. Pollard, Royal Free Hospital.

Midwifery.—W. H. Hooton, Leeds; E. B. Keen, Charing Cross Hospital; G. Meyer, University of Graz; W. J. Morton, Edinburgh and Aberdeen; J. K. Nariman, Bombay; and H. M. Pollard, Royal Free Hospital.

The Diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery: H. A. Hancock, W. J. Morton, and H. M. Pollard.

UNIVERSITY OF LONDON.—At examinations held recently the following candidates were successful:—

M.D. EXAMINATION FOR INTERNAL AND EXTERNAL STUDENTS.

Branch I., Medicine.—Edwin Lancelot Ash, B.S., St. Mary's Hospital; Ernest Frederick Finch, B.S. and Thomas Mellor Hardy, B.S., University of Sheffield; Pantland Hick, B.S., University of Liverpool; Arthur John Scott Pinchin, B.S. (University medal), St. Thomas's Hospital; and Edwin Joseph Wyler, B.S., London Hospital.

Branch III., Mental Diseases and Psychology.—Henry De Vine, B.S. (University medal), University College, Bristol.

Branch IV., Midwifery and Diseases of Women.—Eustace James Carey Dicks, B.S. (University medal), St. Mary's Hospital; Philip William Hamond, Guy's Hospital; and Dorothea Clara Maude, B.S., Marian Mayfield, B.S., Eleanor W. Perkins, B.S., Mary Flint Taylor, B.S., Ida Clare Tengely, B.S., and Edith Louisa Young, B.S., London (Royal Free Hospital) School of Medicine for Women.

Branch V., State Medicine.—Dora Elizabeth L. Bunting, B.S., London (Royal Free Hospital) School of Medicine for Women and University College; Henry Joseph Cates, B.S., St. Bartholomew's Hospital and King's College; Cecil Lionel Lakin, B.S., Charing Cross Hospital and University College; and Geoffrey Eugene Oates, B.S., St. Mary's Hospital.

Branch VI., Tropical Medicine.—James Connor Maxwell Bailey, St. Bartholomew's Hospital; and Frederick Fenn Elwes and Ivor Davenport Jones, Middlesex Hospital and London School of Tropical Medicine.

M.S. EXAMINATION FOR INTERNAL AND EXTERNAL STUDENTS.

Seymour Gilbert Barling, University of Birmingham; Vincent Zachary Cope, B.A., M.D., St. Mary's Hospital; and Albert James Walton, B.Sc., London Hospital.

N.B.—This list, published for the convenience of candidates, is issued subject to its approval by the Senate.

UNIVERSITY OF LIVERPOOL.—The following degrees were conferred at the graduation ceremony on July 10th:—

Ch.M. (Ex-officio).—W. Thelwall Thomas and Robert Jones.

M.D.—J. A. Murray Bligh, H. E. Heapy, H. R. Hurter, L. Hutchinson, A. Hendry, T. W. Jones, S. J. M'Clellan, J. E. W. MacFall, and J. Graham Martin.

M.B., Ch.B.—W. A. Daley (first-class honours), K. J. C. Bradshaw (second-class honours), A. G. W. Owen (second-class honours), N. W. Steinberg (second-class honours), and J. W. Cropper.

At examinations held recently the following were successful:—

FIRST M.B., CH.B. EXAMINATION.

Parts I. and II.—C. W. Dixon, J. R. Jones, E. B. Marsh, A. C. Mooney, H. S. Pemberton, R. E. Roberts, and J. St. G. Wilson.

Part II.—F. A. Belam, A. D. Bigland, H. E. Marsden, R. Martlew, and Beatrix M. Walker.

SECOND M.B., CH.B. EXAMINATION.

Part A.—D. H. Clarke, R. C. Crooke, J. E. Getting, R. Heald, N. P. Laing, J. Loudon, and G. W. Mooney.
Part B.—R. W. Gemmell and M. T. Morgan.

FINAL M.B., CH.B. EXAMINATION.

Part I.—J. Bamforth, J. E. Barnes, J. Campbell, A. A. Dear, E. S. Miller, W. R. Wade, and T. W. Wadsworth.
Part II.—K. J. C. Bradshaw, J. W. Cropper, W. A. Daley, A. G. W. Owen, and N. W. Steinberg.
Final B.D.S. Examination.—F. Halsall.
First L.D.S. Examination.—P. G. Capon, C. Q. Dinn, S. S. Tiffin, and W. Williams.
Second L.D.S. Examination.—J. Burns, W. B. G. Jones, and J. Tyson.
Final L.D.S. Examination.—G. P. P. Clapham.

VICTORIA UNIVERSITY OF MANCHESTER.—At examinations held recently the following candidates were successful:—

Degree of M.D. by Examination.—J. C. Smyth.
Degree of Ch.M.—E. Archibald Smith.
Final M.B. and Ch.B. Examination.—H. E. Allanson, R. J. Batty, Elsie Brown, W. A. Bullough, S. J. Clegg, D. I. Connolly, F. H. Diggle, John Gow, T. T. Higgins, Niel McDonald, Saud Mahamadi, Edith M. Marsden, C. B. Marshall, G. E. E. Nicholls, Harry Platt, A. A. Smalley, Norman Tattersall, R. H. Titcombe, J. F. Ward, and F. G. Wrigley.
Second M.B. and Ch.B. Examination.—G. S. Bate and G. E. Sawdon.
Anatomy: Harold Harrison, D. S. Jones, and H. C. Wright.
Third M.B. and Ch.B. Examination.—General Pathology and Morbid Anatomy: P. S. Green, W. Hoyle Parkinson, and J. P. Stallard.
Pharmacology and Therapeutics: A. E. Ainscow, K. D. Bean, Rupert Briercliffe, C. E. Butterworth, Caleb Davies, Norman Duggan, A. W. Gaye, P. S. Green, Harold Heathcote, A. H. Holmes, L. W. Howlett, R. C. Hutchinson, R. A. Jackson, R. B. Jackson, Geoffrey Lapage, W. H. Laslett, Jane C. Miller, Manfred Moritz, J. H. Nichol, W. Howarth Parkinson, W. Hoyle Parkinson, Alexander Reid, J. B. Scott, W. A. Sneath, William Stirling, jun., J. S. B. Stopford, G. K. Thompson, James Walker, William Warburton, Charlotte E. Warner, and Gordon Whitehead.
Public Health: A. E. Ainscow, K. D. Bean, Rupert Briercliffe, Caleb Davies, Norman Duggan, A. W. Gaye, P. S. Green, Harold Heathcote, A. H. Holmes, L. W. Howlett, R. C. Hutchinson, R. A. Jackson, R. B. Jackson, Geoffrey Lapage, W. H. Laslett, Jane C. Miller, Manfred Moritz, W. Howarth Parkinson, W. Hoyle Parkinson, Alexander Reid, J. B. Scott, W. A. Sneath, William Stirling, jun., J. S. B. Stopford, G. K. Thompson, James Walker, William Warburton, Charlotte E. Warner, and Gordon Whitehead.
Diploma in Public Health.—Andrew Baxter, Frank Butterfield, R. J. Chapman, J. A. Fairer, D. P. M. Farquharson, C. C. Finlator, Alexander Grant, Henry Herd, Harriet McCloghrey, Annie Mooney, Sheila M. Ross, Elsie M. Royle, Barnett Saul, H. G. Ward, and Henry Whitehead.
Sanitary Inspectors Certificate Examination.—J. H. Colley, Harold Howard, H. M. Jackson, S. Smith, and Lilian Watson.
Final B.D.S.—O. R. Allison.
Diploma in Dentistry, Final Examination.—J. O'H. Kennedy.
Diploma in Dentistry, Third Examination.—C. E. McNabb.

UNIVERSITY OF DURHAM.—At the Convocation held on July 24th the following degrees and diploma were conferred:—

Doctor of Medicine.—Vincent Edgar Badcock, Charles William Menelaus Hope, Elizabeth Niel Niel, and Howard Bewlay Stephenson.
Doctor of Medicine for Practitioners of Fifteen Years' Standing.—Thomas William Bartlett, John Gay, Henry Johnson Hildige, John Leslie Jeaffreson, Edward Swan Marder, Joseph Adam Nolan, Everett Edward Norton, Charles Reidy, Ernest Ringrose, John George Uppleby, and Alexander Hope Walker.
Bachelor of Medicine (M.B.) and Bachelor of Surgery (B.S.).—Wilfred Barkes, Alexander Hay Bower, John George Campbell, M.A., Harold Alexander Cooper, Patrick Albert Galpin, Francis Frederick Trevor Hare, and John Pritt Jackson, College of Medicine, Newcastle-upon-Tyne; Theresa de Gournay Miller, London School of Medicine for Women; Ruth Nicholson, Robert Raffle, and Harold Widdrington Sykes, College of Medicine, Newcastle-upon-Tyne; Dorothea Mary Tudor, London School of Medicine for Women; and George Huntly Wood, College of Medicine, Newcastle-upon-Tyne.
Degree of Bachelor of Hygiene (B.Hy.).—Sydney Havelock, Howard Bewlay Stephenson, and Thomas Leathard Wormald.
Diploma in Public Health (D.P.H.).—Sydney Havelock, William Tait Sewell, Howard Bewlay Stephenson, Frank Thomas Herbert Wood, and Thomas Leathard Wormald.

At the Third Examination for the degree of Bachelor of Medicine the following candidates satisfied the examiners:—

Pathology, Medical Jurisprudence, Public Health, and Elementary Bacteriology.—Honours (First Class): John Hamilton Barclay, College of Medicine, Newcastle-upon-Tyne. *Honours (Second Class):* Michael Brennan, College of Medicine, Newcastle-upon-Tyne. *Pass List:* Oscar Frederick Don Airth and John Bain Alderson, College of Medicine, Newcastle-upon-Tyne; William Henry Isaacs Bathurst, London Hospital; Thomas Albert Hindmarsh and William Hudson, College of Medicine, Newcastle-upon-Tyne; Harold Llewellyn James, Guy's Hospital; Frank Hutchinson Kennedy and John Lumb, College of Medicine, Newcastle-upon-Tyne; John Howard Owen, College of Medicine, Newcastle-upon-Tyne, and Guy's Hospital; Thomas Alfred Peel, College of Medicine, Newcastle-upon-Tyne; Eliot Jessie Ramsbotham and Madeline Rosa Shearburn, London School of Medicine for Women; Carl Johan Valfrid Swahnberg, St. George's Hospital; Charles Sim Thompson, College of Medicine, Newcastle-upon-Tyne; Olivia Nyna Walker, London School of Medicine for Women; and Arthur Hyde Wear, College of Medicine, Newcastle-upon-Tyne.

LONDON SCHOOL OF TROPICAL MEDICINE.—The following students have successfully passed the examination held at the end of the thirtieth session, April to July:—

*P. Bahr, *P. J. de Miranda, *J. A. Harley (Colonial Service), *R. Brooke (Captain, U.S. Army), *R. A. Lloyd (Captain, I.M.S.), C. H. Bowle-Evans (Major, I.M.S.), W. E. Giblin, J. L. Lunham (Captain, I.M.S.), T. Chalmers, W. H. Peacock (Colonial Service), A. Lundie (Colonial Service), G. A. Turner, W. H. Sieger (Colonial Service), C. L. Strangman, T. F. Bayfield (Colonial Service), G. F. Forde (Colonial Service), R. C. Macpherson (Colonial Service), J. Guillen, W. Parsons, G. J. W. Kelgwin (Colonial Service), G. King (Captain, I.M.S.), and J. M. O'Connell (Colonial Service).
* Passed with distinction.

In all, 51 students have taken out the course. The accommodation at the school provides for only 40 students in the general laboratory and about five in each of the special departments. With the present classes the school has been much overcrowded. Thanks to the generosity of a friend of the school, the laboratories will be enlarged during the long vacation, and it is hoped that when the school reopens in October there will be sufficient accommodation for all who desire to go through the curriculum even if they are more numerous than in the present session.

UNIVERSITY OF EDINBURGH.—The following degrees in medicine and surgery were conferred at the graduation ceremonial of the University of Edinburgh on July 23rd:—

Doctor of Medicine.—‡James Allen Ainscow, Alford William Anderson, Marion Hamilton Archibald, Breadalbane Blacklock, Walter James Buchanan, ‡Claude Ernest Addison Coldicutt, ‡Thomas Edmund Coulson, Barbara Martin Cunningham, Francis William Murray Cunningham, ‡John Dalgleish, Marcus Graham Dill (Lieutenant, R.A.M.C.), Chatterton Eric Elliston, ‡Hugh Nethersole Fletcher, James Stewart Gelkie, ‡John Dudgeon Giles, ‡James Girdwood, Robert Hamilton, Patrick Wood Hislop, ‡Katie Welton Hogg, ‡Charles William Hunter, ‡Evan Harries Harries-Jones, Henry Irvine-Jones, John Jardine, Edward Hughes Jones, Julius George de Kock, *George Francis Stirling Landon, †Archibald George Kirkwood Ledger, Alaister Fraser Lee, *William Macdougall, *Archibald Currie Macgilchrist (Captain, I.M.S.), *John Pool M'Gowan, ‡Thomas John Tyndale M'Hattie, John Douglas M'Kelvie, *Alister Thomas Mackenzie, ‡Robert John MacKessack, John James M'Millan, †John Norman M'Turk, †Legh Richmond Herbert Peter Marshall, ‡Robert Pirie Mathers, Alexander Philp Mitchell, John Morison, Robert Stewart Mowat, Neil Gordon Munro, Donald Sutherland Murray, George Percy Norman, Arthur Thomas Paterson, *Charles Fulton Pattie, David Hutcheon Paul, ‡James Philip, †Agnes Ellen Porter, James Murray Renton, Owen Lewellin Rhys, Thomas Ernest Roberts, †Amy Robinson, ‡Francis Lidderdale Scott, Alfred Irving Shepheard-Walwyn, Charles Stuart, William Tarr (Captain, I.M.S.), James Anderson Taylor, Robert Whitson Telford, Cyril Hocken Tewsley, Hedley Barry Thomson, ‡James Alexander Thwaits, George Herbert Ussher, ‡Fernand Louis de Verteuil (Surgeon, R.N.), John Andrew Leslie Wallace, Robert Henry Walton, John Clarkson Birkbeck Williams, and David James Williamson.

* Awarded Gold Medals for their theses.
† Highly commended for their theses.
‡ Commended for their theses.

Master of Surgery.—William Maxwell Munby and David Percival Dalbreck Wilkie (awarded gold medal for thesis).
Bachelor of Medicine and Bachelor of Surgery.—Fergus Armstrong, Alice Elizabeth May Babington, Thomas Henry Balfour, Thomas Chalmers Borthwick, Ajit Mohan Bose, William Gillon Brand, Frank Adolphus James Brodziak, Gavin Stiell Brown, †Alexander Ninian Bruce, William Frederick Buist, Oswald Symes Bulloch, *William Leslie Burgess, Bhumonjee Nowrojee Burjorjee, Leonard Andersen Pearce Burt, †Alfred William Burton, Sarah Ellice Buyers, †James Argyll Campbell, Humphrey Gilbert Carter, Joseph Adolphus Hamilton Carter, George Law Cawkwell, Ralph Brereton Chamberlain, Armando Dumas Child, William Francis Christie, William Purvis Chrystall, Noël Anthony Coward, James Crocket, John Kolbe Milne Dickie, Adelaide Anna Dreaper, †Alfred Moore Elliott, Herbert George Feltham, John Bell Ferguson, Gerhard Friedrich Fismer, Mary Muter Gardner, Graham Hogg Garnett, Alexander Wilson Gill, Walter Ethard Goss, Alexander George M'Pherson Grant, Satis Chandra Sen Gupta, †Allan George Hamilton, *Henry Fleming Hamilton, *Robert Coltart Harkness, †Thomas Eustace Harwood, †George Russell Inglis, Flora Riddell Innes, William Christopher Jardine, Archibald Mason Jones, *George Edwin King, †Josiah Howard Lawry, Leonard Leslie, Cecil Robertson Lethem, William Robertson Logan, Mary Low, Harry Foote Lumsden, Donald Cameron Macaskill, Alexandra Barbara MacCallum, William Macdonald, †George Edward Gray Mackay, James M'Connell M'Keand, Archibald Duncan M'Kenzie, Alexander Gordon MacLeod, Robert James Alan Macmillan, Ronald Chesney MacQueen, Andrew Jamieson Macvie, John Malloch, Charles Gerard Marais, Thomas Henry Reeve Mathewson, William Messer, †Edward Loggie Middleton, Alexander Fleming Wilkie Millar, Lachlan Martin Victor Mitchell, Stevenson Plumbe Moore, William Morrison, John Alexander Mortimer, John Murray Moyes, Anna Lilian Muncaster, †James Oag, Govinda Raman Pillai, Eric

M'Kay Reid, †John Renwick, †Duncan Glenerochie Robertson, William Stewart Robertson, Dermid Maxwell Ross, William Ross, Richard Picton Rosser, Charles Merill Schaffter, John James M'Intosh Shaw, Kerr Simpson, George Hulseberg Sinclair, Henry Faithful Smith, George Smith Sowden, James Sprent, William Stewart, Cyril Patrick Andrew Stranaghan, James Swan, Arthur Loudoun Taylor, Henry William Teague, John Alexander Thompson, Wyville Smyth Thomson, Allan Watson, John Pearce Whetter, John Wilson, *John Dykes Wilson, and Margaret Chapel Young.

* Passed with First-class Honours.
† Passed with Second-class Honours.

Diploma in Tropical Medicine and Hygiene.—Ethelbert William Dyer and Joseph Robinson.

UNIVERSITY OF ABERDEEN.—The following degrees were conferred on July 21st:—

Degree of M.D.—†Williamina Abel, M.B., Ch.B.; *T. C. Boyd, M.A., M.B., Ch.B.; E. K. Mackenzie, M.B., Ch.B.; and *C. J. R. Milne, M.B., C.M., I.M.S. (under Old Regulations).

* Commendation for Thesis. † Honours for Thesis.

Degree of M.B., Ch.B.—G. S. Melvin (second-class honours), W. J. Allan, W. J. Calder, M.A., R. W. Chalmers, W. Chapman, D. Craig, R. G. Davidson, H. Duguid, R. W. Eddie, A. M. Geddes, W. I. Gerrard, Elizabeth McHardy, G. Macpherson, J. Rae, M.A., G. E. Shand, W. L. Stephen, F. W. Stuart, J. E. Thompson, and R. Tindall.

John Murray Medal and Scholarship (awarded to the most distinguished Graduate (M.B.) of 1909).—G. S. Melvin.

The Diploma in Public Health was also conferred on—

J. Laing, M.A., M.B., Ch.B. Aberd.; J. A. Milne, M.B., Ch.B. Aberd.; and J. A. Watt, M.B., Ch.B. Aberd.

FOREIGN UNIVERSITY INTELLIGENCE.—*Amsterdam:* Dr. N. H. Swellengretel has been recognised as *privat-docent* of the Morphology of the Protozoa.—*Baltimore (Johns Hopkins University):* Dr. Clemens von Pirquet of Vienna has been appointed Professor of Pædiatry.—*Berlin:* Dr. P. Fraenckel has been recognised as *privat-docent* of State Medicine, Dr. Katzenstein as *privat-docent* of Laryngology and Otology, and Dr. Forster, Assistant in the Clinic for Mental and Nervous Diseases, as *privat-docent* of Psychiatry and Neurology.—*Breslau:* Dr. Robert Scheller of Königsberg has been appointed to the charge of the Department of Hygiene in the University Institute in succession to Professor Reichenbach.—*Freiburg:* Dr. Oscar de la Camp has been appointed Professor of Medicine in succession to Dr. Bäumler, retired.—*Göttingen:* Dr. Heinrich Vogt, *privat-docent* of Psychiatry, has been granted the title of Professor.—*Gratz:* Dr. Walter Schauenstein has been recognised as *privat-docent* of Midwifery and Gynæcology.—*Greifswald:* Dr. Richard Stern of Breslau has been appointed Extraordinary Professor of Clinical Medicine in succession to Dr. Minkowsky.—*Kiel:* Dr. Hoppe Seyler has been promoted to an Honorary Professorship.—*Marburg:* Dr. Edward Müller of Breslau has been appointed Extraordinary Professor of Medicine.—*Munich:* Dr. Bernhard Heine of Königsberg has been appointed Professor of Otology.—*New York (College of Physicians and Surgeons):* Dr. R. Burton-Opitz has been appointed Professor of Physiology in succession to Dr. John G. Curtis, resigned.—*Prague (German University):* Dr. Gallp has been offered the post of Professor of Anatomy.—*Prague (Bohemian University):* Dr. Josif Znojemsky has been recognised as *privat-docent* of Surgery.—*Rio de Janeiro:* Dr. Aloysio de Castro has been appointed Professor of Medical Pathology in succession to Dr. Miguel Pareira.—*Rome:* Dr. Umberto Deganello has been recognised as *privat-docent* of Medical Pathology.—*Tübingen:* Dr. Max Brunn, *privat-docent* of Surgery, has been granted the title of Extraordinary Professor.—*Turin:* Dr. Francesco Anellani of Pavia has been recognised as *privat-docent* of Neurology.—*Utrecht:* Dr. van Leeuwen has been recognised as *privat-docent* of Pathological Anatomy.—*Vienna:* Dr. Nikolaus von Jagie has been recognised as *privat-docent* of Medicine.

LEICESTER INFIRMARY.—At a meeting of the house committee held on July 28th the following resolution was moved by Sir Edward Wood (chairman of the board), seconded by Mr. B. W. Russell, and carried unanimously:—

That the house governor and secretary do convey to Messrs. N. Corah and Sons the most hearty and sincere thanks of this committee for their generous further gift of £500 to Sir Edward Wood's fund for the completion of the reconstruction scheme of the infirmary. The house committee desire to place on record their deep gratitude and great appreciation not only of this present handsome gift but of former generous contributions respectively to the extension fund amounting in all to £3000, and of Messrs. N. Corah and Sons' continued interest in the work, of the infirmary.

PRESENTATION TO A MEDICAL PRACTITIONER.—At Carmel Methodist Chapel, Abercrave, Swansea Valley, recently, Mr. T. E. Richards, M.B., Ch.B. Edin., J.P., medical officer of health to the Ystradgynlais district council, was presented with an illuminated address, diamond scarf-pin, and gold chain. Mrs. Richards was also made the recipient of a diamond ring, a pair of silver candelabra, and a case of cutlery. The presentation was organised to signalise Dr. Richards's appointment to the commission of the peace for the county of Brecon.

THE QUEEN ALEXANDRA SANATORIUM, DAVOS.—The prospective opening of the sanatorium for the reception of patients early in this autumn was announced from the chair at the sixth annual meeting of the council, held at 11, Chandos-street, Cavendish-square, W., on July 16th, by the President, the Lord Balfour of Burleigh, who has laboured so long and so successfully in the difficult task of raising funds. The magnificent donation of £25,000 just received from a munificent sympathiser, who desires that his name shall not be published, not only supplies the necessary balance to complete the work and to open the sanatorium free from debt, but provides the means for its scientific equipment and for future extensions. For the present the sanatorium will accommodate 54 patients, all in single rooms. But the public rooms are devised for a full complement of 120 patients. The Davos Invalid's Home, the original foundation of the late Mrs. Lord, which for so many years was the only representative of our national charity in Davos, has now ended its task and fulfilled the purpose for which it was initiated—namely, that of developing into a national sanatorium. The home had been granted Royal patronage as far back as 1899.

THE KING AT THE ROYAL NATIONAL ORTHOPÆDIC HOSPITAL.—The new in-patient department of the Royal National Orthopædic Hospital was opened by the King on July 23rd. His Majesty, who was accompanied by the Queen and Princess Victoria, was received at the entrance, where a guard of honour of the Honourable Artillery Company were drawn up, by the Duke of Marlborough (the president of the hospital), Lord Denbigh (the chairman), Lady Denbigh, the Mayor and Mayoress of Marylebone, Sir R. B. Martin, and Sir Samuel Scott (the treasurer). Subsequently an address was read to Their Majesties, in which it was stated that the committee of King Edward VII. Hospital Fund for London, having realised that great economies of management might be effected by a policy of amalgamation among those special hospitals carrying on similar work in London, had urged the committees of the old Royal, National, and City Orthopædic Hospitals to amalgamate their funds and build a central institution. That building, which provided for 200 in-patients, most of whom were children suffering from malformations which could be cured in the early stages, was the first realisation of the policy of concentration. In addition to the hospital itself they had a nurses' home and an out-patients' department, where last year more than 11,000 cases were treated. The cost of the buildings had amounted to about £75,000, of which £20,000 were still required. More than 400 patients were now waiting for admission. The King, in his reply, said he was sure that there was no lack of generosity among those who were able to contribute to the support of such an institution, and that the pressing needs of the hospital merely required to be brought home to the imagination of those who would be glad to give did they but realise the urgent necessity for help. Lord Denbigh then made a number of presentations to the King, and the ceremony concluded.

LONDON COUNTY COUNCIL.—At its meeting on July 27th the London County Council adjourned until after the recess the consideration of the Asylums Committee's recommendation that two receiving houses for the early treatment of the insane should be established in the metropolis (see THE LANCET, July 24th, p. 249). When the matter comes up again Mr. Hayes Fisher has given notice to move on behalf of the Finance Committee that only one receiving house be established.—At the same meeting the Public Health Committee submitted to the Council a proposal (announced in THE LANCET of July 17th, p. 199) that Parliamentary powers should be sought to enable sanitary

authorities in the metropolis to regulate the condition of stables and to control the sale of food in the streets. The committee's recommendation, however, met with considerable opposition, and on a division a sufficient majority was not forthcoming to enable the matter to be proceeded with. Mr. Simmons, who moved the reference back, did not object to the inspection of costermongers, but he thought that the growth of motor traffic and the "decadence of the horse" made legislation for stables unnecessary. Mr. Whitaker Thompson, who seconded, had such a dread of officialism that he hinted uncleanliness might be preferable. Mr. Gilbert Johnstone, chairman of the committee, urged that if the premises of large cartage contractors and cab proprietors were more cleanly, the fly nuisance, which in his experience was worse in the East End of London than in Egypt, would be much abated. It might also be possible to stamp out glanders, in dealing with which the Council spent thousands of pounds annually. Mr. Johnstone mentioned that nine of the metropolitan borough councils wished to have powers to inspect costermongers' barrows. At present shopkeepers were subject to constant inspection, but street vendors escaped scot free. Mr. Johnstone's arguments, however, failed to win over a sufficiently large majority of the Council. Less than two-thirds voted in favour, and the proposal fell through.

TWO NOTABLE RUSSIAN LIBRARIES. — The *Torg. Prom. Gazeta* prints a message from Novotcherkask saying that the Donsk Polytechnic is about to acquire the Mendeleieff Library, for which purpose the institution is endeavouring to raise 12,000 roubles. The *Novoe Vremya* states that the Pirogoff Library has acquired the library of Professor Polotebnoff, who died last year. It consists of some 400 volumes on dermatology and other branches of medical science, and it was so well known in Europe that the professor's widow received offers from Leipsic and Dresden for the collection, which includes the learned professor's own works on dermatology. But she preferred to make a gift of the collection to a Russian institution.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Departmental Committee on Coroners.

THE first report of the Departmental Committee appointed to inquire into the law relating to coroners and coroners' inquests and into the practice in coroners' courts has been presented to Parliament.

The Local Education Authorities (Medical Treatment) Bill.

The Local Education Authorities (Medical Treatment) Bill has passed through all its stages in the House of Commons. When it came up for consideration on report a new clause was added in the following terms: "Nothing in this Act shall be construed as imposing any obligation on a parent to submit his child to medical inspection or treatment under section thirteen of the Education (Administrative Provisions) Act, 1907." The Bill was afterwards read a third time.

Milk and Dairies (Scotland) Bill.

Some alterations have been introduced into the text of the Milk and Dairies (Scotland) Bill by the House of Lords. The committee stage was completed at one sitting on July 22nd. The Bill, by Clause 5, required that all dairies should be licensed annually by the local authority. Lord BALFOUR of BURLEIGH took exception to the trouble involved to the dairyman in taking out an annual licence, and put forward a proposal to institute a register of dairies. When once a dairy was on this register it was not to be removed except for a sufficient reason. Amendments carrying out this proposal were inserted in the clause against the desire of the Secretary for Scotland. At the instance of Lord PENTLAND Clause 9 was recast. By it, as it now stands, a local authority which finds that milk is being brought into its area from a district where the provisions of the Bill are not properly observed must first complain to the local authority of that district before applying to the Local Government Board to intervene. Several other changes with regard to details were introduced into the Bill.

Nurses' Registration.

Delegates from organisations in favour of the registration of nurses had a meeting at the House of Commons on July 26th. Their object of meeting was to consider the terms of a Bill which might prove acceptable to all the organisations, and as such would be introduced next session. It is understood that obstacles were encountered in the consideration of the details of the Bill, and no decision was made with regard to them.

The Health of the Troops in India.

A motion of Sir WILLIAM COLLINS has been passed by the House of Commons for a return showing the cases of, and deaths from, enteric fever, cholera, plague, and small-pox (with corresponding rates per 1000) in the native army and among European troops in India respectively, for each year from 1900 to 1908 inclusive.

HOUSE OF COMMONS.

WEDNESDAY, JULY 21ST.

The Inspection of Diseased Meat.

Mr. WATT asked the President of the Local Government Board what countries in Europe besides Great Britain had their meat inspection now done by their medical officers of health; and whether, in view of the public danger if unsound imported meat was not detected, he would see that all inspectors appointed in the future had attended a course of lectures on meat inspection and had taken a certificate thereon.—Mr. BURNS answered: The information at my disposal does not enable me to answer the first part of the question precisely, but I may point out that other European countries do not, as a rule, have a service of local medical officers whose administrative functions correspond with those of medical officers of health in regard to the inspection of food. I have no reason to believe that the port medical officers of health cannot satisfactorily perform the duty of judging whether meat is unsound. It is, however, the practice of the Local Government Board before sanctioning the appointment, under the Foreign Meat Regulations, of inspectors or other persons to act under the direction of the medical officer of health in relation to the powers and duties imposed on him by the regulations, to require evidence that these persons are qualified to perform them.

Mr. W. THORNE: In the event of meat being condemned has the right honourable gentleman any guarantee that it is destroyed?

Mr. BURNS: Yes, it is destroyed in every case. Unsound meat is invariably sent to the destructor and a certificate is given of its destruction.

Mr. W. THORNE: What occurs in the many cases where there is no destructor?

Mr. BURNS: The unsound meat is destroyed in other ways—in furnaces or by means of chemicals.

The Manufacture of Morphine in India.

Mr. LAIDLAW asked the Under Secretary of State for India whether the Indian Government had established or contemplated the establishment of a factory for the manufacture of morphine.—The MASTER of ELIBANK replied: Opium alkaloids in small quantities are extracted in the Government opium factories from waste opium, but the Indian Government has not established and does not contemplate establishing a factory for the manufacture of morphine.

Indian Medical Practitioners.

Mr. KETTLE asked the Under Secretary of State for India whether he was aware that there were highly qualified and experienced Indian medical practitioners who were not allowed to work even as honorary surgeons and physicians on the staff of Government hospitals; and whether any steps would be taken to put an end to the existing system, which was detrimental to the interests of all concerned.—The MASTER of ELIBANK wrote in reply: The number of surgeons and physicians who can be attached, in whatever capacity, to Government hospitals is necessarily limited. As to the policy of the Secretary of State and the Government of India in regard to medical appointments generally, I would refer the honourable Member to the papers recently presented to Parliament.

Mr. KETTLE also asked whether the chief medical advisers to the Government of India and to the local governments were to be military officers of the Indian Medical Service; whether the appointment of civil medical practitioners to important posts would depend on the recommendation of these officers; and whether he was aware of the general belief amongst Indians that there could be no real reform so long as the chief posts were reserved for military medical men.—The MASTER of ELIBANK replied: The Secretary of State is not at present in a position to add anything to his answer to the honourable Member's question of June 17th last as to the manner in which the policy recently laid down can be carried into effect.

Mr. KETTLE further asked whether the honourable gentleman was aware that some London Schools of Medicine were practically closed to Indian students; and whether he would take steps to see that persons qualified from such schools were not employed by the Government of India in its medical service.—The MASTER of ELIBANK answered: The Secretary of State does not think it advisable to modify the existing arrangement under which the medical services of the Government of India are open to the profession generally.

Steevens' Hospital.

Mr. HAZLETON asked the Chief Secretary to the Lord Lieutenant of Ireland what action had been taken by the constabulary authorities to ensure that in future members of the force suffering from infectious diseases, such as tuberculous consumption of the lungs, should not be allocated to the common ward of Steevens' Hospital to the danger of other occupants of the ward.—Mr. BIRRELL furnished the following reply: I am informed by the constabulary authorities that there has

always been a separate ward in the hospital for ordinary infectious disease. A special ward has now been set apart for pulmonary tuberculosis.

THURSDAY, JULY 22ND.

Hospital Accommodation and the Royal Irish Constabulary.

Mr. HAZLETON asked the Chief Secretary to the Lord Lieutenant of Ireland whether members of the Dublin Metropolitan Police Force were permitted by their authorities, in case of illness, to select their own hospitals; whether this practice had been found to be prejudicial to the public service; whether he was aware that the Royal Irish Constabulary object to be sent compulsorily for treatment to Steevens' Hospital; and whether, in view of the fact that faith was a large factor towards recovery, especially in serious illness, orders would be issued giving the Royal Irish Constabulary a choice in the selection of hospitals.—Mr. BIRRELL replied: In case of illness the men of the Dublin Metropolitan Police are generally allowed to select the hospital to which they wish to be sent, and this practice has not been found to be prejudicial to the public service. I am not aware that the Royal Irish Constabulary object to be sent compulsorily to Steevens' Hospital, and the constabulary authorities see no reason for changing the existing practice which has worked well and harmoniously for many years.

Medical Inspection of Elementary Schools.

Mr. SUMMERBELL asked the President of the Board of Education to state the number of medical officers for elementary schools that had made reports to his department; when the Board's promised medical report on such inspection would be ready; and whether such report would indicate the reforms, if any, recommended by such medical officers.—Mr. RUNCIMAN replied: Reports have been received from 253 local education authorities. These reports will be dealt with generally in the Board's report, which will, I hope, be ready for issue in October.

Lunacy in Ireland.

Mr. VINCENT KENNEDY asked the Chief Secretary to the Lord Lieutenant of Ireland whether he had seen in the last annual report of the inspectors of asylums in Ireland that the increase of lunacy in that country since 1880 was 10,949; had the increase for the last few years been continuous; would he say what the population of Ireland was in 1880, and the then number of lunatics, and also the population of Ireland for 1908 with the number of lunatics; could he say whether there was a similar increase, per head of the population, of this disease in any portion of the British dominions; and had the present Government considered whether anything could be done to cope with the increase of this almost national calamity.—Mr. BIRRELL (by written answer) replied: I have seen the statement referred to. I am informed by the inspectors of lunatics that in 1880, when the population was estimated at 5,202,648, the number of lunatics under care in Ireland was 12,982, and that in 1908, when the estimated population was 4,371,436, the number of lunatics under care was 23,931, an increase of 10,949. The increase has been continuous, but has tended somewhat to fall off in recent years. In England the increase in the registered insane between 1880 and 1907 was 52,971. In Scotland the increase between 1880 and 1908 was 8185. The Government has had before it a report dealing at length with the causes which, in the opinion of the inspectors, have contributed to swell the numbers of insane in institutions in Ireland. This report was presented to Parliament in 1906 (Cd. 3126).

The Metropolitan Asylums Board and Vaccination.

Mr. B. S. STRAUS asked the President of the Local Government Board whether he was aware that the hospital committee of the Metropolitan Asylums Board had made it a condition of tenancy of cottages on their property that every person residing therein should be vaccinated and revaccinated to the satisfaction of the medical officer; and whether such requirement had been sanctioned by the Asylums Board and by the Local Government Board.—Mr. BURNS furnished the following written reply: As regards the cottages on the small-pox hospitals estate of the Metropolitan Asylums Board at Joyce Green, Dartford, it has been made a condition of tenancy that every person residing in them shall satisfy the medical superintendent of the small-pox hospitals that he or she is adequately protected against small-pox or shall consent to be vaccinated or revaccinated. The condition has been laid down by the hospitals committee of the managers, acting in their behalf, and in pursuance of the general policy agreed to by the managers and the Dartford sanitary authorities, and approved by the Local Government Board, for the protection of the neighbourhood of the small-pox hospitals against the disease. It only applies to the cottages on this particular estate.

The Queen Alexandra Imperial Military Nursing Service.

Mr. BOULTON asked the Secretary of State for War why colonial training in large general hospitals was not accepted for the Queen Alexandra Imperial Military Nursing Service.—Mr. HALDANE wrote in reply: My honourable friend has been somewhat misinformed. Colonial training is accepted under the same conditions as training at home. It depends, however, on the opinion of the nursing board whether any particular nurse-training institute attached to a hospital is accepted for recognition

TUESDAY, JULY 27TH.

The By-laws of the Royal College of Surgeons.

Dr. V. H. RUTHERFORD asked the Secretary of State for the Home Department whether, in view of the attitude of the members of the Royal College of Surgeons, as shown in the memorial recently submitted, he proposed to sanction the new by-laws proposed by the Council of the Royal College of Surgeons.—Mr. GLADSTONE answered: The matter is still under my consideration.

Public Health in Croydon.

Mr. W. THORNE asked the President of the Local Government Board whether he was aware that, according to the report of the medical officer of health of the borough of Croydon for 1908, numerous cesspools in the Croydon rural district were in direct communication with water-bearing strata from which drinking-water was derived; that the local authorities did not attempt to put into operation the model building by-laws of the Local Government Board, which insisted on builders making cesspools watertight; that cesspools in the district were allowed to be built in defiance of the by-laws and in such a way as to encourage the direct flow of sewage under 20 or 30 feet of pressure into porous chalk; and that within the Croydon drainage areas there were in 1907, according to the borough engineer's report, 249 houses drained by cesspools which were capable of being connected with the sewers; was he aware that the medical officer had urged the necessity of safeguarding and extending the present water-supply; and, seeing that in January, 1908, the Croydon corporation laid the facts before the Local Government Board, would he say what action the Board had taken, or proposed to take, in the matter, and what assistance or advice the Board could give on the whole question of water-supply from the chalk.—Mr. BURNS replied: I am aware of the reports of the medical officer of health and borough engineer referred to in the question. I communicated with the rural district council and was informed that it had succeeded in persuading a considerable proportion of the owners concerned to connect their premises with the public sewers. I advised them as to the powers which they possessed for dealing with cases when such connexions had not been made, and I subsequently issued an order conferring upon them certain additional powers under the Public Health Acts Amendment Act, 1907. Further, I am causing some scientific investigations to be made with regard to chemical means of purifying chalk waters. I am fully alive to the importance of the subject.

The Inspection of Imported Meat.

Mr. WATT asked the President of the Local Government Board whether, in the regulations under the Public Health (Regulations as to Food) Act, it was the Customs officer whose duty it was to call in the medical officer of health to examine imported meat which the Customs officer considered unsound; if so, would he say whether that official was qualified by training to decide what meat was diseased and what meat was wholesome; and, if not, would he alter the regulations so that all meats imported were subjected to expert examination.—Mr. BURNS replied: It is the case that an officer of Customs would not be qualified by training to decide what meat is diseased and what meat is wholesome, but the regulations do not require him to do this. His duties under them are to require that certain classes of foreign meat, whether it is diseased or not, shall not be removed until they have been examined by the medical officer of health, and that other classes of foreign meat shall not be removed if by reason of facts brought to his knowledge or of representations made to him, he is of opinion that the meat requires examination by the medical officer of health. The responsibility for expert examination rests with the medical officer of health, and he may examine any foreign meat whilst it is still in the district, although it has not been detained by the officer of Customs. It does not appear to me that any alteration of the regulations is necessary.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

BOOTH, S. H., M.B., B.S. Lond., has been appointed House Surgeon at the General Infirmary, Leeds.

BRUCE, JOHN MITCHELL, M.D., F.R.C.P. Lond., has been appointed to the Consulting Staff of King Edward VII. Sanatorium at Midhurst.

BUDD, ARTHUR, M.B., B.S. Durh., has been appointed Medical Officer of Health of Launceston (Cornwall).

BUXTON, DUDLEY W., M.D., B.S. Lond., M.R.C.P. Lond., has been appointed Lecturer to the newly created Lectureship in Anæsthetics at the Royal Dental Hospital of London.

CHALMERS, T. A., L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Harris District of the county of Inverness.

DALLY, J. F. HALLS, M.D. Cantab., M.R.C.P. Lond., has been appointed Physician to the St. Marylebone General Dispensary, Welbeck-street, W.

DAWSON, B., M.D., F.R.C.P. Lond., has been appointed to the Consulting Staff of King Edward VII. Sanatorium at Midhurst.

FLINT, H. L., M.B., Ch.B. Leeds, has been appointed House Physician at the General Infirmary, Leeds.

HACKNEY, C., L.R.C.P. Lond., M.R.C.S., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Hythe District of the county of Kent.

HALLOWES, K. R. C., M.B., B.Ch. Dub., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Bellanagh District of the county of Cavan.

HUNT, ERNEST, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Kingsteignton District by the Newton Abbot (Devon) Board of Guardians.

KEYSER, CHARLES R., F.R.C.S. Eng., has been appointed Surgeon to the Cancer Hospital, London.

MACK, E. G., M.B., B.S. Lond., has been appointed House Surgeon at University College Hospital.

MOLE, HAROLD FREDERICK, F.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Surgeon to the Bristol Royal Infirmary.

OLDFIELD, CARLTON, M.D., B.S., M.R.C.P. Lond., has been appointed Honorary Surgeon to the Hospital for Women and Children, Leeds.

SAVAGE, WILLIAM GEORGE, B.Sc., M.D. Lond., L.R.C.P., M.R.C.S., D.P.H., has been appointed Medical Officer of Health for the County of Somerset, and Medical Officer of Schools to the Somerset County Council.

SCOTT, SYDNEY, M.S. Lond., F.R.C.S. Eng., has been appointed Surgeon for Diseases of the Ear and Throat at the National Hospital for the Relief and Cure of the Paralysed and Epileptic, Queen-square.

SINCLAIR, HAROLD WEIGHTMAN, M.D. Lond., L.R.C.P. Lond., M.R.C.S., D.P.H. Lond., has been appointed School Medical Inspector by the Gloucestershire Education Committee.

SMITH, GEORGE MUNRO, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Consulting Surgeon to the Bristol Royal Infirmary.

SPEARMAN, R., M.B., B.C. Cantab., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Clacton-on-Sea District of the county of Essex.

THOMSON, H. A., M.D., F.R.C.S. Edin., has been appointed Professor of Surgery in the University of Edinburgh.

WALTERS, CHARLES FERRIER, F.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Assistant Surgeon to the Bristol Royal Infirmary.

WOODSEND, R. N., M.R.C.S., L.R.C.P. Lond., has been appointed House Physician at University College Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM UNIVERSITY.—Lecturer on Pathology and Bacteriology.

BRADFORD POOR-LAW UNION HOSPITAL AND WORKHOUSE.—Assistant Resident Medical Officer, unmarried. Salary £130 per annum, with rations, apartments, and laundry.

BRIDGWATER HOSPITAL.—House Surgeon, unmarried, for six months. Salary at rate of £80 per annum, with board, lodging, and washing.

BURNLEY, VICTORIA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with residence, board, and washing.

CARSHALTON, SURREY, CHILDREN'S INFIRMARY.—Assistant Medical Officer. Salary £150 per annum, with board, lodging, and washing.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—Assistant Surgeon.

CHELTENHAM GENERAL HOSPITAL.—House Surgeon, unmarried. Salary £70 per annum, with board and lodging. Also Surgeon-in-Charge of the Branch Dispensary, unmarried. Salary £80 per annum, with board and lodging.

CHESHIRE, CROSSLEY SANATORIUM, Delamere Forest.—Assistant Medical Officer. Salary £100 per annum, with board, apartments, and laundry.

CHESTER GENERAL INFIRMARY.—House Physician. Salary £90 per annum, with residence and maintenance.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House Physician for six months. Salary at rate of £75 per annum, with board, residence, and washing. Also Clinical Assistant.

COLCHESTER, ESSEX COUNTY HOSPITAL.—House Surgeon. Salary £80 per annum, with board, washing, and residence.

DERBY, DERBYSHIRE ROYAL INFIRMARY.—Assistant House Surgeon. Salary at rate of £60 per annum, with board, residence, and washing.

DEVONPORT, ROYAL ALBERT HOSPITAL.—Assistant Resident Medical Officer, unmarried, for six months. Salary at rate of £50 per annum, with board, apartments, and laundry.

DORCHESTER, DORSET COUNTY HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum.

GERMAN HOSPITAL, Dalston, N.E.—Honorary Anæsthetist.

HARRIS PARISH.—Medical Officer. Salary £125, with house.

JERUSALEM, BRITISH OPHTHALMIC HOSPITAL.—Assistant Ophthalmic Surgeon. Salary £300 per annum, with house.

LANCASTER, ROYAL INFIRMARY.—House Surgeon, unmarried. Salary £100 per annum, with residence, board, attendance, and washing.

LEEDS UNION, IN-DOOR INSTITUTIONS, Beckett-street.—Assistant Medical Officer. Salary £120 per annum, with board, washing, apartments and attendance.

LIVERPOOL INFIRMARY FOR CHILDREN.—House Surgeon for six months. Salary £30, with board and lodging.

MACCLESFIELD GENERAL INFIRMARY.—Junior House Surgeon. Salary £60 per annum, with board and residence.

MANCHESTER, ANCOATS HOSPITAL.—Resident House Physician. Salary £80 per annum, with board, residence, &c.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead and Northwood, Middlesex.—Junior Resident Medical Officer, also Assistant Resident Medical Officer. Salary in each case £50 per annum, with board and residence.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House Surgeon. Salary £60 per annum, with board, residence, and laundry.

PORTSMOUTH, ROYAL PORTSMOUTH HOSPITAL.—Assistant House Surgeon. Salary £75 per annum, with board, &c.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House Surgeon. Salary £80 per annum, with rooms, commons, and washing.

ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN, Plaistow, E.—Senior Resident Medical Officer, unmarried. Salary at rate of £100 per annum, with all found. Also Assistant Resident Medical Officer, unmarried, for six months. Salary at rate of £80 per annum, with all found.

SALFORD UNION INFIRMARY.—Senior Assistant Resident Medical Officer. Salary £150 per annum, with apartments and attendance, without rations.

SHEFFIELD UNION HOSPITAL, Firvale.—Resident Assistant Medica Officer, unmarried. Salary £100 per annum, with apartments, rations, &c.

SHOREDITCH INFIRMARY, Hoxton-street, N.—Second Assistant Medical Officer. Salary £100 per annum, with rations, washing, and apartments.

SUNDERLAND INFIRMARY.—House Surgeon. Salary £80 per annum, with board, residence, and washing.

SUNDERLAND, MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House Surgeon. Salary £100 per annum, with board, residence, and washing.

WALLINGFORD, BERKS COUNTY ASYLUM.—Second Assistant Medical Officer, unmarried. Salary £150 per annum, with board, apartments, attendance, &c.

WIGAN INFIRMARY.—Junior House Surgeon. Salary £100 per annum, with rations and apartments.

THE Chief Inspector of Factories, Home Office, S.W., gives notice of vacancies for Certifying Surgeons under the Factory and Workshop Act at Hoddesdon, in the county of Hertford; at Bedford, in the county of Northumberland; at Methlick, in the county of Aberdeen; at Arnesby, in the county of Leicester; at Tralee, in the county of Kerry; and at Kilmackevogue, in the county of Kilkenny.

THE Secretary of State for the Home Department gives notice of a vacancy under the Workmen's Compensation Act, 1906, for the Sheriffdom of Stirling, Dumbarton, and Clackmannan.

Births, Marriages, and Deaths.

BIRTHS.

BOKENHAM.—On July 26th, at Highview, Wokingham, Berks, the wife of Thomas Brandon Bokenham, M.R.C.S., L.R.C.P., L.S.A., of a daughter.

MILLIGAN.—On July 26th, at Upper Brook-street, W., the wife of W. Anstruther Milligan, M.D., of a son.

MARRIAGES.

EASON—WALLACE.—On July 24th, at Highgate Presbyterian Church, John Eason, M.D., F.R.C.P. Edin., of Edinburgh, to Christina Joan Wallace, M.A., daughter of Mr. and Mrs. William Wallace, Highgate, N.

WHITE—TICHENER.—On the 22nd inst., at St. George's, Hanover-square, by the Rev. David Anderson, Rector of the parish, Charles Francis Orr White, M.R.C.S., L.R.C.P., son of the late John Orr White and Mrs. Orr White of Sunnyside, Norwood, to Edith Nina, younger daughter of Mr. Edward Tichener of Heath View, Walton, Epsom.

DEATHS.

PHILIPPS.—On July 27th, at Savoy Mansions, W.C., Alfred Philipps, M.R.C.S., aged 68.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

SLEEPING SICKNESS IN UGANDA.

THE report for 1907–08 of Sir Henry Hesketh Bell, K.C.M.G., Governor of the Uganda Protectorate, has been presented to Parliament through the Colonial Office. In his introductory statement Sir Hesketh Bell expresses his thankfulness at being able to report that the measures which have been taken during the past three years to stamp out sleeping sickness are proving effectual. During 1907 the deaths from the disease in the kingdom of Buganda numbered less than 4000. During 1908 the mortality fell to about 1700, and it is believed that for the whole Protectorate the deaths during the past 12 months have not exceeded 2500. No Europeans are known to have become infected since 1906. Practically the whole of the population of the fly-infested shores of Lake Victoria has been removed to districts inland where the tsetse fly does not exist, and it is believed that there can now be but few cases of fresh infection so far as the mainland is concerned. Steps are in progress for the complete depopulation of the islands in the lake. It was feared that this would prove a most difficult matter, but the native government is now showing such confidence in the efficacy of the measures adopted by the executive for the suppression of sleeping sickness that the request for final action has come from it. 21,000 persons will have to be moved and arrangements are being made to locate them in Chagwe and in other districts of the mainland. The realisation of this project will put the finishing touch to the whole scheme. The pestilent tsetse fly will still infest the shores of the great lake, but it will find no more victims on which to play its malevolent part. Sleeping sickness has ceased to be the dominant scourge of the territory, and the disease has now been reduced to a merely sporadic scale. Continued vigilance, however, is essential, and the re-crudescence of sleeping sickness can only be averted by the consistent maintenance of preventive measures.

"SPEAKING OF FLIES!"

WE have had previous occasion to call attention to the common-sense methods of educating the people in health matters adopted by the Department of Health of the City of Chicago, notably in connexion with an excellent little leaflet bulletin issued fortnightly for public instruction. We have now received from the same bureau a small but striking poster which is headed "Speaking of Flies!" and which proceeds to speak of them in terms of the ungarnished truth. And lest the verbal recital of Musca's potentialities for evil should not seize the general imagination a pictorial border (designed, we read, by the Florida State Board of Health) is introduced showing plagues of flies pursuing their abominable courses. In the left-hand column of this border are shown a consumptive's spittoon, a garbage-can, a muck-heap, a dead dog, and a privy midden, each with its attendant swarm of house-flies. These, grown to disgusting dimensions, are shown flitting across the upper and lower borders of the sheet and alighting upon the various articles of food depicted in its right-hand margin, which includes a worried couple dining amidst a cloud of the domestic pests and a fly-ridden sick man in a bed labelled "typhoid." As a counterfoil to these "horrible revelations" there is printed some practical advice on "What to do to get rid of flies," which consists largely of procedures often advocated in these columns, the screening of food and windows, the use of fly-traps, or of formaldehyde, or of bichromate of potash solution. The burning of pyrethrum powder is also recommended, and instructions are given for the elimination of the breeding places of flies. Americans have the reputation at least of being a thoroughly "practical" nation, and we can hardly suppose that they will read this poster and altogether ignore its warnings. We hope the poster will come to the notice of public health officers in this country.

NITROGEN FROM THE AIR.

THE recent Congress of Chemistry had no more interesting subject under consideration than the practical and profitable extraction of nitrogen from the atmosphere and the fixation thereof in the form of nitrate of lime; and that Norway, which a distinguished writer once described as "a howling wilderness," should be the locality where the new industry is to have its headquarters will add interest to what the public will regard as a wonderful achievement. Nitrates, however obtained, are no new thing. Oliver Cromwell laid an embargo on cowsheds and pigsties, which would go to prove that the great Protector was not altogether ignorant of practical chemistry; also that among his military saints and statesmen he did not include any very energetic President of the Local Government Board; while further back still "the greatest, wisest, meanest of mankind," Lord Bacon, considered a small dose of saltpetre taken daily had the sovereign virtue of prolonging life, which he might have possibly proved in his own case had he not the misfortune to die from a cold caused by conducting his philosophical experiments in severe weather. To come down to more modern times, the officinas of Chili and Peru have poured abundant supplies of nitrates in the form of nitrate of soda, which, we think, is the more useful of the two salts, into the Old World, the soil and industries of which have alike benefited by the importation. We are inclined to think that the Norwegian product will still find a doughty competitor in the crystalline nitrogen from the land of the Incas, the resources of which are, we understand, especially under the care of the competent analyst, scarcely trenched upon. While welcoming cheap nitrogen, which is to cheapen everything else, we would say one word of warning in its agricultural application: excess means destruction of the crop, while application at the wrong time is too often a heavy loss of money, which might be spent to greater advantage on less rapid but more lasting nitrogenous fertilisers.

FALKLAND ISLANDS.

ACCORDING to the annual report prepared by the Colonial Secretary, Mr. H. E. W. Grant, the estimated population of the colony for 1908, exclusive of the Whaling Settlement in South Georgia, was 2289, as against 2286 in 1907. There were 58 births and 12 deaths, three of the latter being among children under one year of age and five among persons aged upwards of 60 years. The birth-rate was 25·33 per 1000, as against 23·38 in 1907; the death-rate was 5·24 per 1000, as against 9·26 in 1907. The health of the colony was good throughout the year. The most prevalent diseases, as in former years, were those of the respiratory organs, especially bronchitis and asthma. The district nurse continued her excellent work, paying 1939 visits and attending 65 cases. There were 50 vaccinations, as against 57 in 1907. The monthly supply of vaccine received from Buenos Ayres is of good quality and gives excellent results. The total rainfall registered at Stanley during 1908 was 25·255 inches. The Victoria Cottage Home was opened in May. The institution has been established with the object of perpetuating the memory of the reign of her late Majesty. It has been located in a building which has served many purposes in the history of the colony. As a single large room it afforded temporary shelter of an unpretending character to many of the early immigrants. There was no kitchen accommodation; cooking had to be done on the beach outside in a recess in the peat bank. When the building was no longer required for the purpose for which it was originally designed it became in turn a theatre, a coal-shed, and a Government school. With the addition of a small wing it is now fitted up as a model cottage home capable of accommodating the nurse-matron, the district nurse, and six inmates.

HOLIDAY GUIDES.

THE town councils of most of the large towns in the United Kingdom now issue to intending visitors illustrated guides which are very convenient not only to those who are as yet undecided as to where they will spend their annual holiday, but also to those who are seeking a change of residence and who wish to know something about the climate of the residential towns of Great Britain and Ireland. Among the recent guides which we have received from the Health Resorts Development Association, 29, John-street, Bedford-row, London, W.C., are those of Reigate, Richmond, Basingstoke, Egham, Esher, Berwick-on-Tweed, Carnoustie, Dumfries, North Berwick, Fitlochry, St. Andrews, Stirling, Cork, Enniskillen, Kingstown, Londonderry, Portrush, and Youghal. Any of these guides may be obtained free if a postcard is sent to the town clerk of the places mentioned, and in some cases a list of registered apartments, hotels, boarding-houses, and schools will also be supplied on request.

M.D., M.R.C.P.—We have frequently called attention in THE LANCET to the disgraceful nature and dangerous character of many of the replies given to foolish people seeking medical advice from the columns of the inferior lay papers. It is not easy for the General Medical Council to interfere because in most cases where a medical man assists in the dangerous game of treatment by correspondence his name cannot be obtained. We think that the local physician, whose name is mentioned in one of the replies in question, ought to resent such unfortunate publicity, but it would not be fair to assume that he knew or approved of the use that is being made of his name.

Mathos.—The two latest works upon medicine are the "System of Medicine," edited by Sir Clifford Allbutt, a new edition of which is now in the process of appearance, and the "System of Medicine," edited by Osler and McCrae, which is also not complete. These two works, however, are rather expensive. Of smaller books the following might suit our correspondent: Taylor's "Manual of the Practice of Medicine," the eighth edition of which appeared in 1908, and is published by Messrs. J. and A. Churchill, and Osler's "Principles and Practice of Medicine," the seventh edition of which appeared this week published by Appleton.

L.D.S. Eng.—We should say from the use of the word "location" that the publication, stray leaves of which our correspondent encloses, was of American origin. Custom in the United States in the matter of advertising differs markedly from what obtains in this country. We do not suppose for an instant that either the medical men or the qualified dentists whose names appear are cognisant of the fact that their names are inserted, or would have allowed them to be inserted had their permission been asked.

Thecla would be glad to hear of any works dealing with ionic medication.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (2nd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M.), St. Mark's (2.30 P.M.).

TUESDAY (3rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College 2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M., Ophthalmic, 2 P.M.), Tottenham (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

WEDNESDAY (4th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan 9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Royal Orthopædic (3 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M., Dental, 2 P.M.), Tottenham (Ophthalmic, 2.30 P.M.), West London (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

THURSDAY (5th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Orthopædic (9 A.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M.), Tottenham (Gynæcological, 2.30 P.M.), West London (2.30 P.M.), Central London Throat and Ear (Minor, (9 A.M., Major, 2 P.M.).

FRIDAY (6th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.) Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.), Tottenham (2.30 P.M.), St. Peter's (2 P.M.), Central London Throat and Ear (Minor 9 A.M., Major, 2 P.M.).

SATURDAY (7th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 A.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M.), West London (2.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

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It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

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Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

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MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

The Index to Vol. I. of 1909, which was completed with the issue of June 26th, and the Title-page to the volume, were given in THE LANCET of July 3rd.

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(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 29th, 1909.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
July 23	29·75	S.W.	0·01	129	73	56	56	61	Cloudy
,, 24	29·71	W.	0·05	121	67	53	54	60	Cloudy
,, 25	29·64	S.W.	0·04	83	62	54	55	61	Cloudy
,, 26	29·62	W.	0·03	123	68	53	55	60	Cloudy
,, 27	29·97	S.W.	0·05	93	63	53	56	59	Cloudy
,, 28	29·76	N.	0·90	113	70	57	55	59	Cloudy
,, 29	29·91	W.	...	94	67	57	58	62	Cloudy

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